Law of Money, Value and Payment

by

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Submitted in part fulfilment of the requirements for the degree of

DOCTOR LEGUM (LL.D.)

in the School of Law

of the Faculty of Law, Economics and Management

at the University of Durban-Westville.

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November 2002
DECLARATION

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Dear Madam!

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hereby declare that the thesis entitled
LAW OF MONEY, VALUE AND PAYMENT
is the result of my own investigation and research and that it has not
been submitted in part or in full for any other degree or to any other
University.

21. November 2002

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Acknowledgements.

I thank Professor James Mowatt, the Dean of Law, Economics and
Management, for having encouraged me to continue towards the LL.D.
degree.

I am grateful to the examiners that have agreed to evaluate this thesis.
Summary

Societies have, since time immemorial, traded real goods and services for expectations of goods and services in some future. These expectations have been associated with tangible and, lately, intangible property — which is generally called money. From the crude quantity theory of money, the purchasing power of a monetary unit is given as $1/P = T/(Mv)$. $P$ is the price of the traded goods and services $T$, $M$ is the total money supply and its turnover rate is $v$.

The total money supply $M$ is dominated by bank credit. In the South African law (and elsewhere) the judicial recognition given to bank credit\(^1\) as money seems to have happened as an unintended side-effect to accepting cheques as delivery vehicles in a cash transfer without any tangible money moving from the transferor to the transferee.

In payment of money, the law of property and the law of contract overlap and become inseparable. Both the English and South African laws define payment as performance of a preceding duty. The Supreme Court of Appeal, in the Vereins- und Westbank case seems to have declared an abstract transfer of ownership of money to be payment even though no preceding duty to pay was found.

The profit of a financial investment is called interest and is calculated from a simple or compound interest formula. Despite medieval legal, theological and ethical objections, neither is illegal in the South African positive law. The last remnant of the medieval protection of a guilty debtor (often the ruler) at the expense of an innocent creditor is the in duplum rule. This is particularly obnoxious during modern rampant inflation that was unknown and could not be predicted when only metallistic money was in use. The influence of the in duplum rule is being limited by recent restrictive judgments in South Africa and in Zimbabwe.

In South Africa, the Government has a constitutional duty to ensure that its subjects are not deprived of property. Specifically, the Constitution prescribes in Section 224(1) that the South African Reserve Bank must 'protect the value of the currency'. It is shown that the recent

\(^{1}\) To money related claims on banks — see the body of the thesis for the two-creditor-two-debtor legal aspects in the 'bank credit'.

III
Reserve Bank policies, unless urgently modified, are in conflict with the publicly promised inflation rate of no greater than 6%.

The exchange rates depend fundamentally on the price levels of the traded or tradable goods and services in the respective economies. This leads to the concept of purchasing power parity, which is most accurately reflected in the relationship between interest rates in different states and their relative foreign exchange depreciation rates.

It is submitted that the South African Exchange Control Regulations have outlived their usefulness (if ever they had any) and are unconstitutional — at least in so far as they interfere with the South African Reserve Bank's obligation to pursue its primary object 'independently and without fear'. In the main, the South African Courts have applied restrictive interpretation to the Exchange Control Regulations and they have justifiably ignored the public international law obligation of the Republic to recognise the Exchange Control Regulations of fellow IMF members extraterritorially.
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I Introduction

1 The problem of value in law.

Von Savigny on money (2); De Groot on money (3); F. A. Mann on money (6); R. M. Goode on money and payment (8).

It is very difficult to find a legal definition of money that is meaningful. The existing definitions mostly relate money to something that is either too vague or refers back to money in a circular manner. As a representative example, a reputable American law dictionary\(^1\) defined, in 1969, money as 'that which is coined or stamped by public authority as a medium of exchange and has its value fixed by public authority'; and the same dictionary defined value as 'the worth of a thing in money, goods, or other property'.

This tautology cannot be broken without releasing the definition of either money or value from the other. A hint of how to do that is given above — value could be related only to 'other property'. This relationship between some non-monetary property and its value in relation to money is fundamentally of an economic nature and its only legally relevant quantitative aspect in the present context is called the price — this is the ratio between the quantity of money that is, or can be, exchanged for a quantity of other property (tangible, intangible) or for some performance.

The problem that remains is that the value of money in relation to 'other property' 'fixed by a public authority' has not had a particularly lasting effect on the society. Often, the corresponding public authorities themselves (such as those that fixed prices centrally in the previously socialist countries) have not lasted. The fundamental problem is that laws promulgated by sovereign authority have no power over laws of nature. Social and economic activity is governed by both sets of laws. Ignoring this scientific fact creates unnecessary tension, confusion and sooner or later this ignorance is bound to end in natural injustice.

\(^1\) Ballentine (1969). The emphasis is added.
**TRADING WITH EXPECTATIONS**

**INTRODUCTION**

**Von Savigny on money.**

The socio-economic point of view had somewhat mysteriously influenced Article 10(1) of the Treaty between the Federal Republic of Germany and the German Democratic Republic of 18 May 1990. It stated that the money of the eventually unified state, the Deutsche Mark, would be 'means of payment, unit of account and means of storing value'\(^2\). The quantitative relationship of money to value is not necessarily fixed by the public authority. The authority merely declares that money can be used to store value — as if the public would not have done it without this declaration — but the value can be stored elsewhere too. The modern German (and other) legal thinking has been strongly influenced by Friedrich Carl von Savigny, who started by considering value to be a characteristic of a person's property and, in 1840, saw money in the first place as a means for quantifying this value:

'[Die] rein quantitative Behandlung des Vermögens, ohne welche eine Handhabung des Rechts nur in sehr unvollkommener Weise möglich sein würde, wird vermittelt durch den Begriff des Werthes, oder der Gleichstellung verschiedenartiger Vermögensrechte durch Reduction auf ein gemeinschaftliches Drittes. Und dieser Begriff wiederum wird äußerlich dargestellt und in das wirkliche Leben eingeführt durch das Geld, so das also für den juristischen Gebrauch Werth und Geldwerth gleichbedeutende Ausdrücke sind, und auch in der That abwechselnd angewendet zu werden pflegen.'\(^3\)

Von Savigny did not, however, explain how this quantification ('Reduction auf ein gemeinschaftliches Drittes') is to be determined in practice. Instead, in his more famous *Obligationenrecht*\(^4\), Von Savigny (in his 73rd year) closed the circle:

\(^2\) The English translation is taken from Mann (1992), p. 5, n. 12. The emphasis has been added here.

\(^3\) Savigny (1840), Vol. I, p. 376. It is strongly recommended to rely on the original text for any serious argument, legal or otherwise. Nevertheless, in English this would go approximately as follows:

'In the quantitative sense — without which law could be dealt with in a very imperfect manner — property is represented by the notion of value. This makes it possible to equate widely differing property rights by comparing them to a common measure [It is actually not at all clear what von Savigny meant by 'Reduction auf ein gemeinschaftliches Drittes']. This notion is externally represented by, and introduced into reality through, money. Hence, for the purposes of law, value and monetary value mean the same thing. They are indeed used interchangeably.'

In the first place money appears in the function of a mere instrument for measuring the value of individual parts of wealth. ... But money also appears in a second and higher function, viz. it embraces the value itself which is measured by it, and thus it represents the value of all other items of wealth. Therefore ownership over money gives the same power which assets measured thereby are able to give, ... Such wealth power, characterizing money, has ... the attribute of being independent of individual abilities and necessities, and consequently of having equal usefulness for all and under all circumstances.\textsuperscript{5}

Brown reduced the above fury of words twenty years later as: '... while money is thus, 1. A simple instrument of measure, it is also, 2. A valuable thing in itself, and may, therefore compare with other modes or varieties of value.'\textsuperscript{6} Von Savigny considered and rejected the nominal and metal value theories for the purpose of measuring the 'general wealth power' (die allgemeine Vermögensmacht\textsuperscript{7}) over periods of time. Von Savigny did not equate Vermögensmacht with purchasing power. Instead, he preferred the presently no longer relevant\textsuperscript{8} or argued current value\textsuperscript{9} (Kurswert), which is related to the metal value theory.

\textit{De Groot on money.}

From the purely South African legal point of view, the authority of some more ancient Roman-Dutch writers carries more weight. Arguably the most prominent among them is Hugo de Groot (alias Grotius) who wrote in the early seventeenth century, after reception of Roman law. His occasional effort of justifying legal rules with natural and scientific necessities is remarkable and should be emulated by using the latest scientific knowledge about the laws of the material world. Unfortunately, the treatment of money by Grotius\textsuperscript{10} seems confusing. In Chapter VI of Book III (on contracts), Grotius gives an explanation that is still (four centuries later) good for university economics textbooks (the emphasis is added).

\textsuperscript{5} This translation is quoted from Mann (1992), p. 28.
\textsuperscript{6} Brown (1872), p. 71.
\textsuperscript{7} Nussbaum (1950), on p. 141, translates this as 'general financial power'.
\textsuperscript{8} Because the modern monetary systems are no longer based on, or backed by, precious metal.
\textsuperscript{9} This is the translation used by Brown (1872), p. 73. See Nussbaum (1950), pp. 219–222 for a critical analysis of this doctrine.
\textsuperscript{10} De Groot (1631).
TRADING WITH EXPECTATIONS

I. INTRODUCTION

'... Ende alsoo 't niet altijd en gebeurde dat juist die 't een
't over hadde, ofte doen konde, te kort quam aan 't gun
acht dat dien anderen hadden ofte konde doen; also mede de
evenheid van allerhande zaken niet wel en was te treffen
tot onderling genoegen; soo heeft men nodig ghevonden te
ghebruiaken zekere gemeene mate, waer door altijd die iet
gebrekk hadde ende niet en hadde dat des anders gading
was, den selven konde vernoegen, tot welcke mate by 't
meren deel der volckeren is ghebruikt gout, zilver ende
koper, als bequaemst om te draghen ende onghekrenckt te
bewaren, een tecken van de waerde die by de burgherwet
daer op was gestelt, dit noemen wy geld: Ende sal
bevonden werden dat het oudste geld heeft gehad de
afbeeldingen van eenige koeien ofte schapen, beduidende
het selve geld twee ofte meer sulcke beesten waerd was'.

An English translation with South African authority has been left
to us by the Chief Justice Maasdorp.

'[A]s it did not always happen that the person who had
superfluity of, or could do, one thing required that which
another had or could do, and as the comparative values of
all things could not be very well ascertained to mutual
satisfaction, it was found necessary to adopt some
common standard with which a person, if he required
anything and did not possess what another person
desired, might at any time satisfy him. For the purposes of
such standard gold, silver and copper have been adopted
by most nations, as being the best suited to receive and
preserve without deterioration an impression or token of
the value put upon them by municipal law, and this we
call money; and it will be found that the earliest coins bore
the figures of cows or sheep, thus indicating that such
coins were worth two or more such animals.'

Perhaps Grotius himself was not confused? The confusion may
have been introduced into the translation(s). Note that in the first part of
the above quote, Grotius uses evenheid which Maasdorp translates as
comparative value and in the second part of this quote Grotius uses
tecken van de waerde and waerd which Maasdorp translates again as
impression of the value and worth respectively. It is suggested that
evenheid should be translated as equality without any money related
valuation. This would lead to the definition of the (numerical) value of
money as a common measure (gemeene mate) for the other things and
performances, without any (modern) confusion.

11 De Groot (1631) B. III, D. 6, § 3.
12 Grotius (1769/1903). This Twentieth (posthumous) Edition, together
with the voluminous commentaries of William Schorer, President of the
Court of Flanders and Superintendent of Feuds, was translated by A. F.
S. Maasdorp, Chief Justice of the Orange River Colony, before 1903.
It is also possible that the word value in connection with the teicken van de waerde was used by Grotius in the mathematical sense as used by mathematicians, engineers and other natural scientists, e.g. merely indicating the numerical magnitude of some measure in relation to the common reference. Just as the quantity of a material body can be measured by balancing its weight on the one side of a scale with the weight of some standard pieces of bronze on the other side, which have their own weights impressed upon them as numerical values. Nobody should suggest that the (numerical) value of these standard weights would be indicative of their worth, in the economic or monetary sense.14 This line of thought will be elaborated later.

However, in Chapter XXXIX of Book II (relating to usufruct), there is another problem for us:

"... in de verbruckbare zaecck, als geld, koren, wijn, onder goed zeecker, niet van de zelve zaecck, maer even zoo veel nae de dood, aen den ghenen die als eigenaer is, te laten volgen: ten welcken einde men ghewoon is zodanighe goederen te doen schatten, uitgenomen 't geld 't welck niet schatbaer is, maer zelf is de schatting van alles."15

And in English translation:

"... with respect to things which perish with use, such as money, corn and wine, under good security for the return to the owner at the death of the usufructuary not of the same thing but of the same quantity, for which purpose it is usual to have the property valued, except in the case of money, which cannot be valued, but is itself the measure of value of everything else."16

A third concept, schatting, is again translated as value! Something does not make sense here. If ‘even zoo veel’ (just as much) of the perishable things has to be returned, then why not for example weigh them? Since when has money been a measure of mass, volume or any other physical measure of quantity? There cannot be doubt that Grotius was aware of the price fluctuations. He may have actually meant that the owner had to receive not the same quantity (mass or volume) of corn or

13 Grotius (1769/1903) B. III, Ch. 6, § 3.
14 Weight does not indicate mass or amount of material either. It is equal to the gravitational pull of the earth on the material being weighed and varies with the distance from the earth’s center of mass. However, weighing with a balanced beam and counter-weights in a sufficiently uniform gravitational field will determine the mass if buoyancy is negligible.
16 Grotius (1769/1903) B. II, Ch. 39, § 20.
wines but as much as the original estimate (schatting) of the price would buy at the time of settlement. This might be logical within the context of usufruct which entails elements of credit and is distinct from usus which is covered by the law of things. However, it is not clear how to reconcile this interpretation with the definition of money by Grotius. If 'schatting' equals 'waerde' then Grotius is inconsistent, which should not be assumed lightly. If 'schatting' does not equal 'waerde' then what is the meaning of 'geld is niet schatbaer'? Perhaps Grotius was indeed confused about money?

F. A. Mann on money.

While the modern German legal thinking seems to be fruitfully influenced by what economists consider to be valuable or money, the dominating authority on the contemporary English law of money, Dr. Frederick Alexander Mann clearly and despite his German background reveals a distaste for economists, e.g.: '... economic theory is unlikely to assist the lawyer to any appreciable extent'. Mann is clearly convinced that money has to be corporeal and hence it is most important to answer '... the question, in what circumstances may circulating objects rightly [lawfully] be described as money?' The short answer is given as:

'[I]n law, the quality of money is to be attributed to all chattels which, issued by the authority of the law and denominated with reference to a unit of account, are meant to serve as universal means of exchange in the State of issue.'

Even though this definition does not seem to suffer from any apparent value-related circularity, the concept of value cannot in practice be avoided and is indeed utilised by Mann in various unclear ways in support of explanations and arguments later in the text. This definition suffers from relying solely on the state authority, which has never been

17 Max Kaser (1971), on p. 453 finds in the classical Roman law the opinion that 'An den genannten Sachen erhält der Usufruktuar volles Eigentum und haftet dem Beschwerten aus der cautio usufructaria auf Rücküberreichung der gleichen Summe oder Menge.' This does not support the possibility of returning a different mass or volume with the same price. In English: 'The usufructuar becomes the owner of the mentioned things and is liable, on the basis of cautio usufructaria, for the reverse transfer of the equal sum or amount.' Menge is amount or quantity but can also mean mass or volume.


19 Mann (1992), p. 28.

sufficient for understanding how much of such money, or why, would anybody use.

The nature of the economic functions of money — e.g. 'its essence, its intrinsic attribute, its inherent quality' — Mann considers as an 'abstract conception of money.' It should be revealing to hear from businessmen whether, for example, the loss of purchasing power associated with cash holding is more real or more abstract to them than the commercially almost irrelevant legal tender legislation (in South Africa). Mann goes so far as to credit von Savigny with the view that money was purchasing power in terms of wealth. Von Savigny did not even come close to stating this — he spoke of wealth power.

On the other hand, one should perhaps consider that Mann was contemporary with an immensely influential British monetary economist — John Maynard (later Lord) Keynes, who propagated the idea that governments have to stimulate the economy by creating or borrowing money. Keynes was a very able and complex economist, but some of his ideas have been objected to by other very able economists, such as the American Nobel prize laureates Milton Friedman and Robert Lucas. The corresponding debates are held sometimes at a mathematical level which is beyond most other people. The interventionist recipes propagated by Keynes and his followers have been mostly economically disastrous.

Perhaps, Mann objected to the ideas of Keynes but could not argue with him? If this was so then it is a pity that all economists were rejected by Mann for this reason.

It has been suggested that the state authorities have a duty to understand the money-related adverse natural economic forces and counteract or pre-empt them by interfering accordingly. Others have argued that the state must not interfere in private economic relationships. Hence it would be naive or irresponsible to ignore the

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21 Mann (1992), p. 28.
22 Mann (1992), p. 5.
23 Mann (1992), p. 28.
24 See note 7 above and the associated text.
26 Not only by Lord Keynes, the American Nobel Laureate James Tobin and other famous economists.
27 The American Nobel Laureate, Robert Lucas has been quoted, in Parkin and King (1992), p.779, to have said that the monetarists '... don't
economic aspect (the purchasing power) of money in a treatise on its legal aspects. In this sense, the approach of another authority with German background — Professor Arthur Nussbaum\(^{28}\) — has much to recommend it.

The present work starts with the observation that money is needed by societies only for economic reasons. However, as is the case with other social activities, the creation and use of money has almost always been regulated also by positive law for the benefit of the sovereign and perhaps the society or its members. But not only that, the civil law\(^{29}\) revolves mainly around claims for damages and their value in money. It is utterly misleading to analyse money without reference to value.

The primary goal of the research, on which this thesis is based, was to expose the rules of law and laws of nature that determine what is called the value of money. It was not initially clear, but became obvious during the research, that also some of the legal rules relating to payment processes are important in determining both the nature of money and the exchange value it represents. It was also discovered that the legal rules of payment — nay, the concept of payment itself — vary greatly between different legal systems. By necessity,\(^{30}\) mainly the South African view is taken in this work.

\textit{R. M. Goode on money and payment.}

Professor Sir Roy Goode gives a masterly synopsis on the importance of payment in his widely acclaimed book on Commercial Law\(^{31}\) (albeit from an English legal point of view):

\begin{quote}
\textit{[T]he legal concept of money, payment and funds transfer remain elusive. When we speak of money in the bank or the recovery of money paid by mistake or misappropriated, we are likely to have an unclear, if not entirely erroneous, picture of what we mean by "money". Similar considerations apply to payment and funds transfer. We want to manage the US economy. And [they] don't think anybody else should take the job either.'}
\end{quote}

\(^{28}\) Nussbaum (1950). Nussbaum subtitled this, his last major work, as A Comparative Study in the Borderline of Law and Economics.

\(^{29}\) As opposed to criminal law.

\(^{30}\) Among others, this has to do with the very limited library facilities. Much of the necessary literature was bought from the research reward fund that the present writer had earned from his SAPSE qualified engineering research publications.

speak of “paying” by cheque or by letter of credit, though in truth these instruments do not represent payment, merely a different form of payment promise. We regularly confuse payment with tender and with commitment to pay, and we sometimes find it difficult to determine what precisely is the act which constitutes payment and when payment is to be considered complete. Again, we speak of funds transfers without having a clear idea of who is transferring what and to whom. We also use terminology which confuses the payment message with the act of payment. Thus bankers refer to wire transfers and to electronic currency, invisible and intangible, hurtling through the ether!

These concepts are not merely of theoretical interest, for upon the correctness of their analysis may turn the success or failure of legal claims running to hundreds of millions of pounds, and the recognition or denial of proprietary claims to money which if upheld protect the plaintiff pro tanto against the consequences of the defendant’s bankruptcy or liquidation.32

Goode clearly emphasises payment over money, perhaps because of the difficulty of reconciling the historically narrow legal definition of currency with the not less important wider economic emphasis on purchasing power — both of which co-determine how much of money will be paid. For these reasons, it seems, Goode retreats to the following position:

‘[M]uch of the debate on what constitutes money in law is rather sterile and has few implications for the rights of parties to commercial transactions, where payment by bank transfer is the almost universal method of settlement. … The crucial question, then, is not what constitutes money but what constitutes payment. Any transfer of value in a form according with the express or implied agreement of the parties constitutes payment, whether or not it is money in the legal sense. The provision of a claim on a bank, sometimes referred to as bank money, represents by far the most important method of discharging money obligations.33

The present writer is not qualified to express either approving or disapproving opinion about much of what Professor Goode has written. Yet — while admitting the overwhelming importance of payments — the present writer does not agree with the above downgrading of money. It will be shown that the ‘value34 which is transferred ‘in a form according with the express or implied agreement of the parties’, cannot be

34 Professor Sir Roy Goode does not define or analyse the meaning of ‘value’ in the work known to the present writer.
understood usefully in any other manner except by analysing what is money. It is accepted that positive law statutes may *deem* pretty weird things, such as foreign source of earning to be from inside the state (in tax law), invisible pulses of current along telephone lines to be writing (in electronic transactions\(^{35}\)) and much more.

However, it does not help to create respect for law among ordinary people, when a debtor has promised to pay money and the creditor expects to receive money, but some convoluted rules of law say that something that is not money in the legal sense is nevertheless legally money for the purposes of a payment of money!? This sounds perplexing, to say the least. It is suggested instead, that the old definitions of money\(^{36}\) should yield to a new and more natural understanding — especially when the lawful and socially accepted payment procedures so demand. Even Goode (1995) himself, after leaving no uncertainty about his conclusion that ‘in England money in its technical legal sense means physical money that is, notes issued by the Bank of England and coin distributed by the Mint,’\(^{37}\) immediately explains that ‘[o]f much greater interest are claims to *money in intangible form.*’\(^{38}\)

2 Some remarks on style and ordering of material.

The present writer is convinced that this understanding of money requires use of mathematics — of the kind where differential equations\(^{39}\) would be of central importance. One of the surprises in the present research was the realisation that the South African law students do not have to study mathematics of any kind.\(^{40}\) The discovered difficulty of

\(^{35}\) For example, section 9 of the Australian Electronic Transactions Act 1999 (No. 162, 1999) states that ‘[i]f, under a law of the Commonwealth, a person is required to give information in writing, that requirement is taken to have been met if the person gives the information by means of an electronic communication ...’.

\(^{36}\) These definitions have not always been static. For example, bank notes were not always money. See the Chapter III for some historical overviews.

\(^{37}\) P. 490.

\(^{38}\) P. 493. Emphasis is added.

\(^{39}\) Differential equations are natural descriptors of almost anything that changes.

\(^{40}\) This seems to be the same, or similar, in all legal systems. Thus, after having estimated the unsettling impact of a few simple equations on the promoter — which is taken as representative for most lawyers — it seemed prudent not to press the point and to compromise on mathematics in favour of law.
introducing equations into a text on law has led to organising the material in such a way that the quantitative evaluation of value and purchasing power, and some fundamental aspects of their time-related evolution, are undertaken only in the last Chapter. This is done at a rather unsophisticated level of the four basic operations — addition, subtraction, multiplication and division.\footnote{The one case of infinite numbers and limit calculation, with the rule of l'Hôpital, appears in a footnote. The frequently used shorthand notation $x^N$, or similar, means multiplication of $x$ with itself $(N - 1)$ times. (Strictly speaking, this is so simple only with an integer $N$.)} That means that the first three chapters are almost completely free of equations and the sections on payment do not contain the calculation of the amounts that have to be paid in many disputes. This is not substantively ideal, but it does seem to be procedurally practical, under the circumstances.

Another point on organising the material relates to the primary focus on the question of money and its value. Correspondingly, only those legal aspects of payment are analysed that were thought to enhance the understanding of money and this analysis is interspersed within other matters. Also, no real justice could be done to the money and payment related issues of contractual or delictual damages without either very significantly exceeding the scope of the intended research, or diluting it beyond recognition. It seemed better to leave them out almost entirely — at the present stage and for the present purposes. Nevertheless, some analysis of mora interest fits well in the general context of the analysis of present and future values of money in Chapter IV and is accordingly included.

References to books, journal articles and other public material are indicated by the author’s name(s) followed by the year of publication either in parentheses or separated by comma. The corresponding full references are ordered alphabetically in the list of cited literature in References.

Apparently, even our university economics courses do not require the students to know anything about differential equations or analysis. There are worldwide relatively few economists that are comfortable with differential equations.

This problem with mathematics has tossed the writer from post to pillar and back a number of times. After the promoter had criticised the use of mathematics in this work, he requested that the present writer give examples of the use of the law of conservation in section 1 of Chapter III. This cannot be done properly without use of derivatives and differential equations. Based on this instruction, one such example was included at the last moment and can no longer be taken out before the examination.
Italics is used both for Latin expressions and for emphasis. Text enclosed in quotation signs is either a quotation from indicated reference (literature, case, statute, or treaty), or a specific concept in more or less general use. In conformity with general scientific writing, references are given sparingly and in general terms (except when debating a specific point) in the context of economic, historical or other non-legal material. The legal tradition of detailed citation and heavy footnoting is followed in the context of legal material.

It seems, in older legal writings, only few foreign language quotes were translated — unless a linguistic analysis was necessary. However, the present writer was advised to translate all German (and by implication the French) quotes into English. This has been done here.

The Afrikaans quotes require a different explanation. As an official (court) language, it is natural that much of the reported South African case law is in Afrikaans. Ordinarily, it would be unnecessary — if not insulting — to translate the Afrikaans quotes into English. Nevertheless, the Afrikaans quotes have been translated by the present writer for the benefit of readers that do not understand Afrikaans — in particular the (local) promoter and the foreign examiner(s).

3 General overview of the thesis.

The main goal of this work is to clarify the notion of value and its relationship to money in South African law. One of the main foundations for this research is the recognition that whatever has been ‘understood’ or defined as monetary value, is shaped by a whole spectrum of influences. At the one extreme are the natural scientific inter-relationships of mainly economic nature and at the other extreme are the rules that are imposed on the economic activities of a society by its sovereign — but not omnipotent — legislative and judiciary power. The monetary value is like a bridge over a river — if the foundation

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42 As in the above analysis of what the original Dutch text of de Groot could have meant.
43 If it was only for local examiners or other readers.
44 As suggested by the promoter.
45 Apart from a few very minor changes in the body of the thesis, this section is the only significant modification that was added after the original submission of the thesis in November 2002 — in compliance with the recommendation of the examination panel that was communicated to
supporting it on either side of the river is faulty then the entire bridge collapses. Likewise, monetary value cannot be understood by ignoring either the economic or the legal side of the foundation. Nevertheless, it should be emphasised that this work is written primarily for South African legal purposes and the necessary economic analysis is subordinated to this primary purpose.

The method of achieving this goal is essentially positivist in the sense that the writer avoids the ethical normative approach — in both the scientific and legal aspects of this work. This does not mean that positive law must remain as is. On the contrary, positive law is criticised whenever it is found to be in conflict with the natural scientific and other empirical knowledge, or when it is found to be internally inconsistent. Change to legal rules is proposed only when this change can be expected to reduce conflict between the positive laws of the political sovereign and the laws of nature.

Consequently, the reader should not expect to find in this work a single major (normative) proposal, or a single principal argument. The multi-faceted nature of the above goal requires a multi-faceted analysis of the existing private and public law aspects of the South African statutory and case law. A number of unconventional technical legal arguments are elaborated — such as the third party privity question in documentary credit relationships, the insufficient distinction between the object and the manner of performance per aequipollens, the insufficient attention given to the law of property in some recent money payment related cases, the judicial recognition given to bank credit as money, or the unjustified faith in a public interest foundation of the Exchange Control Regulations. Perhaps, the following three of the more unconventional broad arguments can be elevated above the others:

1. The only way to link money to the economic reality is by accepting that it is used for quantifying transferable

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46 It is clearly futile to criticise natural scientific laws as they are by definition not man-made and cannot be changed by humans. This must not be misunderstood to mean that scientific knowledge in general, and scientific theories in particular, are beyond criticism. In this work the theory of relativity and some macro-economic theories are criticised for being un-necessarily complex (in the first case) or for being contrary to the 'positively' observed natural processes (in the latter cases).
expectations, as incorporeal property that is measured in terms of an agreed or statutorily imposed unit of money. However, the exchange relationship of these expectations to the quantity of corporeal property or services in some future is not inherent in the unit of money or in the notion of money.

2. The value of desirable goods or services is determined subjectively during an exchange of these goods or services, which happens when the parties to this exchange value the exchanged desirables differently — each must believe to have profited from the exchange. The value of goods and services is measured generally, but not necessarily, in units of money. In respect of money, there are two quantities of importance: the amount of money, which is measured in its own units; and the 'value of money' that should be called 'the purchasing power of money' for terminological clarity and which is measured in units of the goods or services in an exchange.

3. The RSA Constitution of 1996 obliges the South African sovereign authority to protect the purchasing power of the expectations of the public which are quantitatively associated with the South African money. This constitutional imperative, while sounding good, is too close to being technically meaningless and needs further development. Recent SARB practices and statements are shown to indicate thorough confusion as well as some conflict with own (fluctuating) interpretations of this constitutional duty.

The continuing dominance of the internally very consistent Roman Dutch law in South Africa is quite unique in the current variety of legal systems of the world. Therefore, the work of internationally well-known writers can not necessarily be applied in the South African legal context without a thorough analysis or without at least some form of adaptation. The present work is not comparative in nature, yet some interesting differences or commonalities between different legal systems are indicated when appropriate.

The body of this thesis is divided into three chapters. They are called II Exchange, III Money, and IV Purchasing power.

And when this change can be expected to reduce unnecessary limitations on individual liberties and tensions in the society.
Chapter II Exchange lays the natural groundwork for understanding monetary value by emphasising the fact that, in many exchange transactions, one or both parties only expect to receive the delivery of some desired goods or services in some future time. The notion of money has evolved for the purpose of quantifying these transferable expectations. This quantification is by no stretch of the imagination perfect, but it has served the needs of economic development. The conventionally noted attributes of money — such as 'medium of exchange', 'store of value', 'deferred payment' — remain incomplete without noting this fundamental link to the subjective expectations. The monetary expectations are classified in law as property and, therefore, any transfer of money — as a consequence of a payment duty or not — is governed (also) by the law of property. A distinguishing aspect of the South African law is the adherence to the doctrine of 'abstract transfer'. Finally, the subjective nature of value and wealth is emphasised.

Chapter III Money lays some of the legal groundwork for understanding monetary value by tracing the historical development of money from coins through paper money to bank credit as money. It is noted that some of the legal development has taken place as a consequence of business people having invented new payment procedures. This was shown for paper money by Geva (1987). The same point of view was developed independently by the present writer to show that judicial recognition was given to bank credit money in the course of resolving disputes that were related to cheques and other forms of payment instructions or procedures involving banks as intermediaries.

It is important for the development of law of money and value to expose the misconception that 'funds lent by banks to borrowers originate primarily from savers' deposits'. This is not even close to the reality. In modern economies, the bank credit tends to exceed the total amount of

46 The writer is not aware of this point of view having been expressed in any literature — economic, legal, or other.

49 It is not proposed here that bank credit should be considered as money. Rather, this is deduced from South African cases and illustrated by some persuasive English cases.

50 Geva (2001), p. 7. This seems to reflect a significant part of the current legal thinking internationally. Economists and bankers generally do not make this mistake.
deposited tangible money by ten to twenty times.\textsuperscript{51} Next, the recent and current South African legal tender law is found to differ significantly from the generally assumed modern situation.\textit{De jure,} we have a complicated mixture of nominalistic and metallistic monetary system with weak and confusing legal linkage between them. In the current South African law, 'legal tender' does not imply a compulsion to accept the tendered money.

One of the most difficult unsettled aspects of law relating to money (in payment transactions) is the role of intermediaries — such as banks. Professor Geva (2001) has produced a fascinating comparative analysis of payment procedures via banks. There is no need to do the same in this thesis. However, documentary credit — the dominating payment form in international commercial transactions — is not covered by Geva (2001) and some very controversial recent South African litigation has been reported locally. The reported case law is analysed in the context of this thesis. This critique had to be executed carefully and in detail, because (among other reasons) one of the main conclusions — with the greatest respect — is that the Supreme Court of Appeal erred very recently\textsuperscript{52} in finding a duty to pay without the correlative right to that payment. The same factual result\textsuperscript{53} could have been obtained by considering that there was a right to the sum of money in dispute, based on the established doctrine of abstract transfer\textsuperscript{54} in the South African law of property.

\textbf{Chapter IV Purchasing power} deals directly with the main goal of this work and it has by necessity a more scientific flavour than the previous (preparatory) chapters, because the various aspects of value cannot be quantified without some — albeit rather elementary — mathematical calculations. The writer has derived almost all of the presented equations independently and some may be original. Although no attempt has been made to discover exactly how much of this work has been done by others before, the known references are indicated. Section 1 explains some of the most important and least problematic aspects of

\textsuperscript{51} Since the New Basel Capital Accord of 2001, this factor is permitted to be greater than 100.

\textsuperscript{52} In \textit{Vereins- und Westbank AG v Veren Investments and Others} 2002 (SCA) [Wits Law School website].

\textsuperscript{53} Which the majority obviously desired.

\textsuperscript{54} It is submitted that a consensual transfer of ownership in the disputed amount of money had previously occurred between the two banks — despite the lack of a payment obligation between them.
the well known quantity theory of money. In particular, the money turnover rate seems to have been neglected in the legal literature.

Section 2 gives a concise summary of inter-temporal relationships of value and purchasing power of money. The lack of inherent immorality in interest — simple or compounded — is argued and the corresponding legal developments in the South African law are touched upon. Inflation and its effect on nominal and real expectations is related to time. An apparently little known equivalence between inflation and taxation is derived.

The entire section 3 is devoted to analysing the public law aspect of the value of expectations — the purchasing power of the de facto dominating South African monetary unit ‘rand’. The confusion surrounding the object and purpose of the South African Reserve Bank is analysed — not for the sake of some abstract legal rigour but for the sake of finding a way to ‘protect the intangible property of expectations contained in a sum of money. The necessity of ‘protection’ is derived from the Bill of Rights. It is found that the institutional arrangement for the South African sovereign monetary policy is badly designed from the control engineering point of view and this arrangement is very likely unconstitutional.

Section 4 gives a concise summary of trans-national purchasing power relationships. It is shown how exchange rates are related to purchasing power parity in liberally trading economies and it is shown why, in practice, transaction costs differentiate prices between separate markets. Then it is shown how financial purchasing power parity determines various interrelationships between interest, inflation and depreciation rates in states with liberal foreign exchange regulations. One of the consequences is that states with liberal (or no) capital flow

55 The purchasing power of the other South African gold coin units is arguably related to precious metal commodity prices. The legal uncertainty is highlighted and should be removed by statutory amendment.

56 The meaning of ‘protection’ is unclear in the RSA Constitution as well as in the SARB Act.

57 The domestic and foreign (international) purchasing power regulation is governed by separate legislation and separate legal institutions which can easily have conflicting goals — or conflicting effects on a common goal (if any).

58 Following the positivist approach, the statutory institutions are not unconstitutional until they are found to be unconstitutional by a competent court.
regulations have a common equilibrium real interest rate. However, this equilibrium may be elusive — because of large speculative flows of monetary expectations between states and for other reasons.

Finally, section 5 deals with the South African (and other) Exchange Control Regulations — a remnant from the old discredited mercantilist way of thinking. After World War II, the Exchange Control Regulations were necessary to maintain the internationally agreed fixed exchange rates between IMF member states. About the only private law consequence of the IMF Articles of Agreement arises directly from section 2(b) of the IMF Article VIII, that prohibits enforcing 'exchange contracts which involve the currency of any member and which are contrary to the exchange control regulations of that member maintained or imposed consistently with this Agreement ... in the territories of any member.' As South Africa has never incorporated the IMF Articles, it is a little odd that a recent judgment changed the previously dominating common law approach to foreign revenue laws and exceeded the requirement of the IMF Article VIII 2(b) by declaring a contract to be not merely unenforceable but also illegal because of a violation of foreign exchange control regulations.

The main point of this section is that the South African (and other) Exchange Control Regulations are unnecessary and detrimental to normal economic interaction between states and their economically active subjects. Despite the early devastating criticism of David Hume (in 1752), Adam Smith (1723-1790) and David Ricardo (in 1817), the mercantilist opinions surface occasionally in populist political opinion. However, no modern legal literature is known to this writer that demonstrates, or argues quantitatively, how the Exchange Control Regulations protect the purchasing power of money, or why else they should be retained under the presently dominating floating foreign exchange regime between South Africa and its main trading partners.

60 In Henry v Branfield 1996 (1) SA 244 (D).
61 A state did not enforce the revenue laws of another state.
63 In their present (or any other) form.
II Exchange

1 Exchange of desirables.

Desirables (19); Rational expectations of exchange (21); Profitable exchange (23).

Desirables.

Persons (legal or natural 'parties') need or want certain goods and services to satisfy real or perceived needs. If they have time and other resources to produce goods and perform services in excess of their own minimum needs, they can offer them in exchange for those goods and services that they desire but do not have in sufficient quantity themselves. From a societal point of view, persons also need to be able to rely on private and public alliances. These alliances do not rely only on giving something or doing something, but often require desisting from doing something that may not require any excess production or effort. This may have been the reason why in Roman law praestare (to perform, as a somewhat uncertain English translation) was added to dare (to give) and facere (to do).\(^1\) Here it is suggested that 'performing a service' includes facere and praestare, in so far as they are exchanged between persons because of their desirability.

Economic activity is fundamentally based on exchange of desirables between at least two parties (persons or groups of persons). It is necessary to point out at the very beginning that desirability is not necessarily a universal notion. What is desired by one person need not be desired by another. Even if two or more persons desire the same thing or performance, their needs and wants are generally different. Hence, they may value the same thing or performance very differently.

Desirables are classified into goods and services by economists. Goods can be (arbitrarily) classified into capital, durable and consumable. The desirables are displayed in Table 2-1 in the diminishing order of durability in utilisation. Many goods do not last even when not

\(^1\) Christie (1991), pp. 4-5.
in use, they are perishables in relation to the originally intended use. The most obvious examples are many kinds of food, but so are most electronic equipment as well as fashionable clothing, politics, economic theories and other.

**Table 2-1: Desirables.**

<table>
<thead>
<tr>
<th>Goods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital goods</td>
<td>last for many years or ‘forever’</td>
</tr>
<tr>
<td>Durable goods</td>
<td>last for many operations or long time</td>
</tr>
<tr>
<td>Consumable goods</td>
<td>used up in one action or short time</td>
</tr>
<tr>
<td>Services</td>
<td>used up at creation</td>
</tr>
</tbody>
</table>

A significant difference between the nature of consumables and the nature of services is that consumables can be stored within the time-limit of their perishability, whereas services cannot be stored as such, their creation and consumption is coincident in time. Durables, consumables and services are usually products — results of purposeful productive activity by persons. Capital may be a product but is not always, such as unimproved land. Note that capital is used in a different meaning in the financial context. Legally or otherwise protected ideas are goods and can be capital, depending on the duration of their usefulness. Service activities are often inherently accompanied by transfer/exchange of goods, such as installation (service) of a telephone cable (durable or capital good). This list is neither meant to be a precise definition nor is it complete. At least one other item — money — can and will be added later.

Legal systems classify goods in many ways. Two of the most important are tangible (corporeal) or intangible (incorporeal) and movable or immovable — see **Table 2-2**.

**Table 2-2: Goods legally.**

<table>
<thead>
<tr>
<th>Movable</th>
<th>Intangible</th>
</tr>
</thead>
<tbody>
<tr>
<td>tangible</td>
<td>tangible-movable</td>
</tr>
<tr>
<td>intangible</td>
<td>intangible-movable</td>
</tr>
<tr>
<td>immovable</td>
<td>tangible-immovable</td>
</tr>
<tr>
<td>intangible</td>
<td>intangible-immovable</td>
</tr>
</tbody>
</table>

The two properties, tangibility and mobility, are independent. Hence there is logically a combined classification of things that are simultaneously incorporeal and immovable. This does not mean that physically there need to exist any such goods, but the possibility is in the
TRADING WITH EXPECTATIONS

classification system. This classification is needed mainly for determining the applicable law and jurisdiction, it does not necessarily follow from the physical nature of the things and is sometimes made contrary to the modern plain meaning of the words.

One can classify exchange forms and formalities. A historically 'primitive' form of exchange is barter — simultaneous transfer of desirables between parties with no future obligations. This required neither a continued existence of the other party, or future access to him, nor any assistance in enforcing this exchange. (The simultaneity is not a necessary condition in modern barter transactions.) Another 'primitive' yet complex form of voluntary exchange is more fundamental in nature and is based on supplying goods or services as a favour against an expectation of receiving some desirables in return later. Offering favours against expectations seems to be the dominant form of voluntary exchange among birds\(^2\) and other animals but is very prevalent also among humans.

Transfer of goods and services is not necessarily always based on actual or expected return of desirables, it can be executed purely out of respect, caring, love, gratitude and so forth. This may or may not be expected by the receiver. The return of a favour falls into this category.

Rational expectations of exchange.

Modern economy is dominated by exchange of goods or services for an expectation of delayed/deferred transfer of desirables by one or more parties.

In so far as an expectation is an independent idea in the mind of a person, it cannot be legally relied on — it does not necessarily create a duty for anybody to perform and an expectation may therefore be completely irrational if not foolish.\(^3\) Nevertheless, expectations can be rational if they are quantifiable in terms of at least some desirables with sufficient (but not absolute) certainty and are based on the knowledge of

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\(^2\) Expectation is not a metaphysical concept that presupposes the existence of a mystical mind, which some think only humans have. Rather it is a condition of a part of the nervous system which is called brain. Birds and other animals have brains, albeit smaller and less powerful than the brains of humans.

\(^3\) An expectation induced by the conduct of another is not entirely independent, and may be supported by the law of contract, agency, by the doctrine of estoppel, etc.
laws of nature, or⁴ are enforced by the applicable legal systems (the positive law) for some reasons that are not caused by this expectation alone.

The expression 'rational expectation' was not chosen deliberately to point towards the (lately fashionable) macroeconomic theory of rational expectations, for contributions to which Professor Robert Lucas received his Nobel Prize for economics in 1995. This economic theory is strongly based on a special class of mathematical optimisation theory: the Dynamic Programming as developed by Richard Bellman in the late 1940s and adapted to certain macro-economic difference equations by Lucas and others before, together with, and after him around 1970s.⁵ It would go beyond the scope of this work to analyse this theory further — not so much because it is very complex, but because of its very doubtful usefulness in a court of law, in the respectful opinion of the writer.⁶

An example of a rational expectation is created when a counter-party promises to supply certain desirables in a legally binding manner, such as in a contract. Even though the future transfer of a desirable cannot be made certain by this promise, it is rational to trust it (to rely on it). Trusting another party's quantifiable promise need not be based on trusting this other party, the trust can be rationally based on law (or on other politico-economical forces and actors).

A different example of a rational expectation is created when a person exchanges his (surplus) goods or services for something durable that he personally neither needs or wants, but trusts that some other persons would accept in exchange for something desirable in the future. The rationality is created by the force of the laws of nature, of which economic activity forms part.

Similarly, the same person may carry on producing some personally useless durables and keep them for future exchange —

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⁴ The word or is used here in the logical sense as used in exact sciences: either the one alone or the other alone or both together. In simple but logically wrong usage, some people understand 'or' in the 'exclusive or' sense (xor in computer science), whereby either the one or the other but not both together are meant.

⁵ See for example the very readable introduction to the collection of his most influential papers in Lucas (1981).

⁶ However, it would be considered an honour if the readers find some similarities between the following exposition and some of the ideas of such (libertarian) monetary economists as Milton Friedman, Robert Lucas and many others before them.
however, the keeping of durables is not exchange. In order to avoid helical spirality (this 'corkscrew' is seen as circularity in the axial view/projection), it seems useful to distinguish between the desirables for their own sake (the primary desirables) and those things that are expected to be useful as intermediaries in the delayed exchange against primary desirables (the secondary, tertiary and further desirables). This classification, as most other classifications are, is arbitrary and can be criticised. For example, as desirability is not a universal property of goods and services, one person's primary desirable can be another person's secondary desirable. Furthermore, the needs and wants of even the same person change over time. However, at the time of writing no better idea seems to be available for the purposes of understanding money and its relationship to value.

Both forms of rational expectation have in common that the person who relies on this expectation can be wrong. For example, the person may be mistaken with respect to the applicable laws in the legal or natural scientific sense. It is not necessary, at this stage, to delve into the difficulties associated with the differentiation between law and fact.7 In science, a fundamental (factual) relationship8 is often called a law and this suffices here.

Profitable exchange.

Another important aspect of economic exchange is that it takes place if and only if each party wants to and believes that it does profit from carrying out the exchange, in the sense of judging the opportunity cost9 of not proceeding with the exchange to be greater than exchanging on the given terms. This statement even covers unfair and imposed

7 For example, in an English court, the Italian law has to be proven as fact, but in a German court, the judges are expected to treat the same as law.

8 Such as the Newton's second law that equates the time-derivative of the quantity of motion to the applied force: \( \frac{d(mv)}{dt} = F \) — contrary to a popular misconception, Newton did not write \( ma = F \). \( F \) is the force vector, \( v \) is the velocity vector, \( a = \frac{dv}{dt} \) is the acceleration vector, and \( m \) is the inertial mass. Einstein postulated that the inertial and gravitational masses are equal, but this assumption remains open to experimental challenge.

9 This is the difference between the best use of an opportunity and the next best alternative, measured in respect of the same unit. See further below with respect to the unit of measurement.
exchange, such as ‘protection’ money extorted by a gangster, if the alternative is risking (or losing) one's sufficiently valued life.

In a simple example, A may have 2 litres of milk available for exchange and B may have 1 kg of raspberries available for exchange. A could use 1 litre of the available quantity himself but he prefers B's raspberries. B could eat some more of her raspberries but needs as much of A's milk (protein) as she can get. Neither products can be kept for long because they will perish without use (even though both could later be used for other purposes, like fertiliser).

A would profit when he gets at least 0.5 kg of raspberries for all of his available milk, but would obviously like it even more if he could retain some of the 2 litres for a raspberry milkshake. B is desperate for milk and is prepared to give all her raspberries for 1 litre of milk.

Consequently, both parties profit when milk and raspberries are exchanged in the ratio of 1 litre to 1 kg or 4 litres to 1 kg or anything in between. The actual ratio is determined by negotiation where each party may try to maximise its profit with whatever means they can get away with.

In the ideal case of an economics textbook's 'competitive market', a single maximum possible profit for both parties is determined by this market — after some time when all disturbances and transients have come to a steady state (or never).

2 Transferable expectations.

Transferable promises (24); Associating expectations with property (26).

Transferable promises.

Economic activity and the intensity of this activity is of great importance in modern societies. There are many rational and irrational influences on the choice and intensity of any person's economic activity. Here, the influence of the promise of and trust in delayed transfer of desirables will be investigated further.

Some promises affect only two parties, such as an employment contract that promises a new company car or a nice office after a probationary period. However, this can be regarded as barter with
partially deferred transfer and does not seem to be significant in any modern economy.

Some forms of promise have become economically significant by virtue of being transferable. Thus, a supplier A can transfer some of its goods or services to B for a transferable promise. In order for a promise to be transferable, there must be at least one other party C that is at some future time prepared to deliver to A what B promised earlier. Why should C want to get involved in this other persons' business? It is obviously not sufficient that C has something that A desires, which explains why A would be interested. It is of no help if C is prepared to exchange its goods for some of A's services.

B's promise to A is transferable if and only if C is prepared to exchange its desirables for this same promise or at least for some of this promise — C accepts A's transfer of B's promise to itself. The question still remains, why should C accept this transfer. In other words, why should C trust this promise from B while dealing with A? If C knows B and desires some of B's goods or services, then C may trust that B would make good its transferable promise to the last holder of the promise. This is still rather close to barter — a triangular barter with delayed transfer as is illustrated in Figure 2-1.

![Figure 2-1: Exchange against transferable promise. The sequence proceeds in steps from 0 through 1 and 2 to 3, where the promise is settled (vanishes).](image)

Now, it is not easy for B to make sure up front that C has what A would want against the transferable promise at some future time and that the same C desires something from B. In Figure 2-1, C desired half of what A had transferred to B and half of what B had produced. Furthermore, B and C both believed that B's original promise was worth this deal, after some time.
There are public law related difficulties with bilateral barter. Clearly, the contractual and public law related difficulties with multilateral delayed barter would be much greater still. Could the transactions of the form as shown in Figure 2-1 be based on the traditional bilateral contracts? At the first sight yes, because as Schmitthoff states it succinctly:

‘Commercial law knows, in principle, two methods of transferring rights from one person to another: negotiability and assignability. Apart from the case of transmission by universal succession (such as in case of death, bankruptcy, or merger of companies), it knows only one method of transferring liability, viz. by novation which always requires the consent of the creditor.’

If we assume that the contract between A and B is not void for vagueness, then the outstanding obligation, after A has delivered its good to B in stage 1 of Figure 2-1, defines a right in A and a duty to perform in B. A is the creditor and B is the debtor. In stage 2, A can assign its right to C in return for something from the latter. Figuratively, the first obligation remains on its liability side attached to B but the right flips from A to C, as is shown in Figure 2-2.

Figure 2-2: Creation of the obligation in step 1, modification in step 2 and settlement in step 3.

In stage 3, B performs its obligation to the creditor C with the assigned right. Even though the original obligation is not transferred from one debtor to another, there may be a novation of the original contract if the original duty of B has been changed materially, in which

11 In the Roman law sense of a bind between the creditor and debtor.
case agreement from B is required. For example, the delivery to the new creditor requires a different amount of effort, or is impossible due to lack of adequate transport. B could give its agreement to such novation in the original contract, which is arguably vague and may be revocable. In any case, the general vagueness is not easy to overcome.

In order to make the original obligation from B to A sufficiently specific for lawful enforceability, the underlying contract needs to specify the good or performance that A would accept eventually in exchange for its own Agood. There may not be anyone with such good or service — this would lead to impossibility. However if there is one, then let us call this person C. This is like making a contract for a third party without knowing who this person is. Apparently English law did not recognise *ius quaesitum tertio* until 1999, and Roman law did not recognise *stipulatio alteri* even in the case of a known third party. South African law recognises *ius quaesitum tertio*. However, it is very doubtful if South African law would enforce it in the case of an unknown third party. If the third party is specified too in the original contract and the applicable law supports *ius quaesitum tertio* then the third party, C, has to accept both the rights and duties thus created for itself in order to become party to this contract.

From another point of view, A and B could have a contractual agreement for B having a duty to deliver Cgood from wherever. This can be done in two ways. If B exchanges some of its current goods or services for Cgood then that would be a fundamentally different sequence from that shown in Figure 2-1 and B would become something like a warehouse. This concept does not seem to have any significant modern economic counterpart. The other simple possibility is for B to transfer its duty to some agreeing C. This novation requires an agreement of the original creditor A.

In order for a transferable promise to be economically significant it must not be too specific, it must not relate to any particular good or service that is not generally available, nor to any particular supplier of this good or service. The transferable unspecified promise must leave at least some flexibility in its holder’s choice of what desirables he would want to be exchanged against it and when. The amount of these

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12 Cession is used in South Africa and at least a few of the continental European legal systems.

13 When the Contracts (Rights of Third Parties) Act 1999 was enacted.
desirables must still be quantifiable from the otherwise unspecified promise. Furthermore, a transferable unspecified promise must be recorded in a sufficiently certain manner, otherwise great uncertainty and economic chaos would ensue.

In conclusion, exchange of primary desirables for legally enforceable promises that relate directly to primary desirables is too complex, in the present legal systems, for the purposes of a market economy with large number of participants. The fundamental problem is that promises cannot be detached from individual persons. However, exchange of primary desirables for legally enforceable promises has a major economic presence not only in bilateral contracts but also when the promise relates to something that is trusted to be universally available and accepted in trade. For example, negotiable instruments have a presence in market economies but they relate to payment of money. Promises of banks dominate trade in and between modern economies, but again, these promises relate directly and exclusively to money. Hence, further treatment of exchange of desirables for promises has to be postponed until the concept of money is introduced and sufficiently clarified.

It is submitted here, and argued later, that the primary desirables are exchanged in the vast majority of commercial and other economic transactions not for promises as such, but for certain types of associated legally enforceable rights that are quantified in terms of monetary units.

**Associating expectations with property.**

Basing the expectation of delayed/deferred transfer of desirables not on a promise but on property may lead to a much simpler form of exchange in market economies. The primary legal framework changes from *ius in personam* to *ius in rem* — this does not mean that *ius ad rem* could be ignored.

Assume that B, in Figure 2-1 is a painter and A is an ascetic peasant with no liking for art or any skill for carpentry. He has already exchanged 10 kg of cheese for a chair of C, a carpenter, who has presently no use for more cheese. A has another 10 kg of cheese that is in danger of becoming inedible. B is hungry (for cheese) but has nothing

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14 *Ius in rem* is universal right in an asset, whereas *ius ad rem* is a personal right to delivery or transfer of an asset. (Goode, 1983, p. 8, n. 21.)
that A would desire. C has enough cheese and one more superfluous chair, but is in no hurry to get rid of this chair because he knows that after a while he could use this chair in exchange for some more cheese from A. An unsophisticated economy of ABC would soon be an economy of AC because the artist B would die of hunger. B would probably take his sole painting with him to the grave and half of A's cheese would rot.

Let us now assume that A is a hopeful person that does not like to live on a slow flame. Even though he has no direct use for the painting of B, he nevertheless exchanges his 10 kg of smelly cheese for the painting. He hopes to be able to exchange this painting later for the chair of C. He may be wrong about the preferences of C, but what does he have to lose? He can wait for the right moment, when C is most likely to develop a liking for this painting — with the perishable cheese he did not have the option of waiting. (Failing this, A can look for another person who is prepared to exchange it for something that he desires.) If A is right about his expectation soon enough, then he gets twice as many chairs as without the temporary ownership of the painting. B will survive and continue being part of the economy of ABC. C will have to make other chairs sooner than in the economy of AC, but he would want to do that if he likes paintings enough. He may also use the painting later for some other exchange — for example after the painter has become famous and his paintings become very sought-after.

In this example, the painting was secondary durable for A but became primary desirable for C. It can become secondary again when C no longer wants to keep it.

From a legal point of view, this is an example of a sequence of bilateral barter deals and there is no contractual problem whatsoever. The public law problems in relation to revenue collection are not relevant here.

From the economic point of view, the exchange of primary desirables for a temporary ownership of secondary durables increases the productivity and the wealth of a society, because more supply and demand can be matched than without the transfer of undesirables during the same time. The indefinite holding of secondary durables is of very little help, because this limits the number of exchanges for expectations to one per durable at most.

We now need to ask the question, why should people not be exchanging more desirables for secondary durables than is observed in
real life? The reason is that it takes effort to produce both the primary and secondary durables, to store them, to find a counter-party for the exchange, and to deliver the durables. As should be clear from the above example, more exchange is only possible by utilisation of spare productive capacity. Once everybody is working at the maximum rate within given organisational structures and with given technology, no more exchanges can take place because the necessary manpower is not available. Humans have limited energy and limited time to do all that.

It follows that certain secondary durables are economically more productive and profitable for the purpose of exchange than others. Some of the advantageous features to look out for are correspondingly: availability, durability, modest or no requirement for space, ease of defending possession, general acceptability by counter-parties in the exchange, ease of carrying and delivery, predictability of the ratio of exchange. A special point to consider is the opportunity cost of producing and keeping this durable. For example, if this durable has some primary desirability, then this property is kept idle in the secondary phases of exchange and the primary utility is lost to the entire economy during this phase.

3 Payment: performance of a duty.

Transfer of property (30); Abstract transfer of ownership (34); Payment of a duty to transfer property (40).

Transfer of property.

Clearly, transfer of expectations in any form — promise or property — involves at least two persons. These persons may be natural or juristic. For this transfer to be protected or enforced by law, there must be an element of compulsion in it. This compulsion, duty, or obligation (in the modern usage) may be created by law or by agreement between legally competent parties. If we narrow the transfer of promise down to its legal aspect which consists of transfer of the right to demand

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15 Creation of capacity, in reality requires some available ability which is spare capacity in the wide sense.

16 Original acquisition of property or other rights does not form part of exchange and is therefore of no interest in the present context.

17 Not the making of a promise, but the transfer of the expectations contained in an already existing promise.
by one person (the creditor) of performance of the promised action from another person (the debtor) to a third person (the new creditor)\(^\text{18}\), then we do not need to distinguish between the two kinds of transferable expectations in this section.

In both cases, some property\(^\text{19}\) (res) is transferred. In Roman law, it was possible to acquire real rights over corporeal and incorporeal things.\(^\text{20}\) Gaius explained the legal meaning of res as follows:

'... corporeal things are those that can be touched (for example land, a slave, clothes, gold, silver and finally innumerable other things); incorporeal things are those that cannot be touched (such as those that exist in law, such as an inheritance, usufruct and any type of obligation\(^\text{21}\)).'\(^\text{22}\)

Von Savigny finds that, in law, obligation and property (in German Eigentum) are very closely related not only because both extend the power of a person's will over some of the external world, but also because the obligations are estimable in terms of money and most have the sole object of obtaining some (enjoyment of) property. These extensions of a person's power are therefore his property (in German Vermögen) and the relevant legal rules are called collectively the law of property (in German Vermögensrecht). Note that Vermögen can be translated also as wealth, but here property seems to be more appropriate. This illustrates the problematic nature of relying on translated texts and expressions. In order to understand what von Savigny meant, one has to go back to the original version:

'[Die Obligation] hat mit dem Eigenthum nicht bloß darin eine ähnliche Natur, daß in beiden eine erweiterte Herrschaft unsers Willens über ein Stück der äußeren Welt enthalten ist, sondern sie hat zu denselben auch noch speziellere Beziehungen: erstlich durch die mögliche

\(^{18}\) Cession of the creditor's rights to the third party is an essential element in the transfer of this right. If cession is understood to mean the agreement for the transfer of the ownership then some constructive form of delivery also needs to be executed in South African law — see Kleyn and Boraine (1992), p. 265, n. 3, and further below.

\(^{19}\) In law, property has two meanings: right of ownership in a thing and the thing itself to which this right is connected (Kleyn and Boraine, 1992, p. 1). The context usually indicates which one of the two, or whether both are meant.


\(^{21}\) Obligation in the original Roman sense 'could refer to the creditor's right as well as to the debtor's duty' (Zimmermann, 1990).

\(^{22}\) Institutes 2 13–14. This passage is reproduced from Thomas, van der Merwe and Stoop (2000), p. 141.
Schätzung der Obligationen in Geld, welche nichts Anderes ist, als Verwandlung in Geleigenthum; zweyten dadurch, daß die meisten und wichtigsten Obligationen keinen anderen Zweck haben, als zum Erwerb von Eigenthum, oder zum vorübergehenden Geniß desselben, zu führen. — Durch beide Arten der Rechte also, das Eigenthum wie die Obligationen, wird die Macht der berechtigten Person nach außen, über die natürlichen Gränzen ihres Wesens hin, erweitert. Die Gesammtheit der Verhältnisse nun, welche auf diese Weise die Macht eines Einzelnen erweitern, nennen wir das Vermögen desselben, und die Gesammtheit der darauf bezüglichen Rechtsinstitute das Vermögensrecht.’

In the modern South African law, incorporeal property includes personal rights to performance by another. Harms JA put this beyond doubt in *MV Snow Delta Serva Ship Ltd v Discount Tonnage Ltd* 2000 (4) SA 746 (A), by making the following ‘trite observations’:

‘Rights in relation to the (contractual) performance (obligatio) of another have since time immemorial been classified as incorporeal. The obligation of the debtor is not property; it is the right (often referred to as the “action”) of the creditor. ... rights can be attached and do form an asset in the estate of the creditor. Intangibles by their very nature cannot have a physical locality. ... For purposes of, for instance, jurisdiction the law had to make an election based upon practical considerations by deeming incorporeals to have a location. ... Voet preferred the view that they are located at the domicile of the creditor ... but ... the opinion of Grotius ... was that the situs of an incorporeal right is where the debtor ... resides. ... Our courts have adopted the view of Grotius.’

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23 Von Savigny (1840), Vol. I, pp. 339–340. On p. 345, von Savigny clarifies that ‘das Vermögensrecht [zerfällt] in das Sachenrecht und das Obligationenrecht’. This could be translated as: the law of property consists of the law of things and the law of obligations. See also p. 367. A translation of the quote in the text could be as follows:

The obligation is similar to property not only because both contain an extension of our power over some part of the external world, but also because of a more special relationship. Firstly, an obligation can be estimated [or measured?] by money, that is, it can be converted into ownership of money. Secondly, the majority of and the most important obligations aim solely at acquiring property or its temporary enjoyment. Hence, both types of right, ownership and obligations, enlarge the power of the owner of those rights beyond the natural bounds of this person’s self [whatever that means?]. The totality of these circumstances, which enlarge the power of an individual, we call the property of this person, and the totality of the related legal relationships we call the law of property.

24 At 753E–H, paras 9–10. The view of Thomas, van der Merwe and Stoop (2000), that ‘it would appear as if only corporeal things are regarded as thing in modern South African law’ (p 142), (no longer) seems a correct
It is a feature of the South African law, as it was in the Roman-Dutch and in the (informal\textsuperscript{25}) Roman sources, that the transfer of the right of ownership needs fulfilment of two requirements\textsuperscript{26}:

- a legally valid reason\textsuperscript{27} for the transfer and
- delivery\textsuperscript{28} of the thing to the transferee.

Neither of the two alone is sufficient to transfer ownership. This clearly means that, unless enforced by law, delivery must be accompanied with the agreement of the relevant and competent parties to transfer ownership. In\textit{ Greenshields v Chisholm} (1884) 3 SC 220, at 227–228, De Villiers CJ said:

'The mere delivery is not enough; there must be an acceptance by the purchaser, “in order that thus”, to use the language of \textit{Voet}, “the minds of both contracting parties may concur and consent to the transfer of the property”.'

Hence, it is submitted, the agreement must contain explicit or implicit consensus in respect of both intentions, to deliver\textsuperscript{29} the \textit{res} and to transfer the real right of \textit{dominium}. As a general rule, the transfer of ownership is a doubly bilateral act — the parties must co-operate in respect of both the agreement to transfer ownership and the delivery of the \textit{res}.\textsuperscript{30} The \textit{res} need not be a specific thing, it can be a specific quantity of a kind (\textit{genus}) which becomes ascertained (identified, separated) before or during delivery. With respect, von Savigny’s opposition to the ‘barbaric expression \textit{res fungibles}\textsuperscript{31} is strongly reflection of the law. See also Kleyn and Boraine (1992), pp. 9–15, for a survey of the South African (academic) debate in this relation.

\textsuperscript{25} In sense of ius gentium.

\textsuperscript{26} Thomas, van der Merwe and Stoop (2000), p. 137.

\textsuperscript{27} Such as an agreement, or donation.

\textsuperscript{28} Delivery or transfer of possession, in law, is a complex concept — wider than simple giving. In Roman law it was called \textit{traditio}.

\textsuperscript{29} There has been and still seems to be some lingering disagreement about the need for consensus in delivery — particularly in relation to payment, see further below.

\textsuperscript{30} Various multilateral extensions are possible — such as joint ownership and delivery with the help of intermediaries (e.g. attornment and international payment of money through banks). But it seems to be in the logic of the concept of ownership (\textit{dominium}) that the ownership always transfers between only two persons, or groups of persons, in any single transaction of property transfer.

\textsuperscript{31} Von Savigny (1840), Vol. VI, p. 123: ‘Die neueren Schriftsteller nennen sie seit Jahrhunderten mit einem barbarisch gebildeten Ausdruck \textit{res}
supported here. The word *quantity* expresses much more clearly the relevant natural aspects of things which normally need to be quantified for the purposes of exchange — for example, by measuring their volume, mass, energy content, or (market) exchange value.

**Abstract transfer of ownership.**

The agreement to transfer the real right to property may be incorporated in a *preceding* contract, but need not be. This is not the place to enter into the debate between the so called causal and abstract theories of transfer\(^3\). It seems that, in South Africa, the abstract theory dominates in the sense that ‘... ownership of a movable will pass if the parties intend ownership to pass and the article is delivered, even though there might not be agreement as to the reason for the passing of ownership’\(^3\). In *Commissioner of Customs and Excise v Randles, Brothers and Hudson Ltd* 1941 AD 369, Watermeyer JA explained what he considered to be the *causa* (*iusta causa traditio*):

‘If the parties desire to transfer ownership and contemplate that ownership will pass as a result of the delivery, then they in fact have the necessary intention and the ownership passes by delivery. It was contended, however, on behalf of the appellant that delivery accompanied by the necessary intention on the part of the parties to the delivery is not enough to pass ownership; that some recognised form of contract (a *causa habilis*, as Voet, 41.1.35, puts it) is required in addition ... I do not agree with that contention. The *habilis causa* referred to by Voet means merely an appropriate *causa*, that is, either an appropriate reason for the transfer or a serious and deliberate agreement showing an intention to transfer.’\(^3\)

Centlivres JA explained in the same case:

‘The legal transaction preceding the *traditio* may be evidence of an intention to pass and acquire ownership, but there may also be direct evidence of an intention to pass and acquire ownership and, if there is, there is no need to rely on the preceding legal transaction.’\(^3\)

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\(^3\) Kleyn and Boraine (1992), pp. 78–84.

\(^3\) Per Lance Burger in von Ziegler et al. (1999), p. 330.

\(^3\) At 398.

\(^3\) At 411.
Prima facie, it follows that ownership can pass despite the
invalidity of an underlying or preceding contract. Indeed, in *Trust Bank van Afrika Bpk v Western Bank Bpk* 1978 4 SA 281 [A], Trengrove AJA confirmed this proposition in relation to movables:

'Volgens ons reg gaan die eiendomsreg op 'n roerende saak
op 'n ander oor waar die eienaars daarvan dit aan 'n ander
lewer, met die bedoeling om eiendomsreg aan hom oor te
dra, en die ander die saak neem met die bedoeling om
eiidomsoordrag staan los van die geldigheid van enige
onderliggende kontrak'.

In the special case of illegal contracts, the same result is obtained
in English law on a different ground. Quoting Professor Sir Roy Goode:

'Unless otherwise expressly or implicitly provided by
statute, illegality merely renders a contract unenforceable,
not totally void. ... It follows that where money has been
paid or property transferred under the illegal contract, title
passes to the transferee, despite the illegality.'

In *Air-Kel (Edms) Bpk v/ a Merkel Motors v Bodenstein* 1980 3 SA
917 (A), 'Jansen JA explicitly accepted the abstract system of transfer of
ownership [in movables] as part of our law'. It follows that the mere
fact that the underlying contract is for example void as a result of error,
does not in itself vitiate the ... agreement to transfer ownership. If
however, the same or different error is present in the relevant agreement
to transfer ownership, then the real right cannot pass on delivery. The
agreement that precedes or accompanies delivery may, of course, be
conditional. In a contract of sale, since Justinian, the Roman law
required for transfer of ownership, 'apart from delivery of the sold
property, also the payment of the purchase price or that an agreement
for credit or security for payment was provided.' This is still so in South

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36 At 301H–302A. An English translation is something like: 'In our law,
the right of ownership goes to another person when the owner delivers
the thing to the other person with the intention to transfer the ownership
to this other person and the other person takes the thing with the
intention of receiving the right of ownership. The validity of property
transfer stands independently of the validity of any underlying contract.'

Belvoir Finance Co. Ltd v. Stapleton [1971] 1 QB 210. It also follows that
the passing of property under the illegal contract is not dependent on
delivery (Belvoir Finance Co. Ltd v. Stapleton [1971] 1 QB 210).'

38 Kleyn and Boraine (1992), p. 80. See *ibid* in relation to the extension of
the abstract transfer to immovables.

39 Kleyn and Boraine (1992), p. 86.

African law. But it does not mean that delivery and payment of price will necessarily lead to transfer of ownership without the corresponding intention. The necessary minimal result of a sale transaction in South African law — transfer of *vacua possessio* — does not amount to transfer of *dominium*.41

Even though the early Roman *mancipatio* and *in iure cessio* were both abstract forms of acquiring ownership42, the abstract theory in relation to *traditio* is allegedly a unique German development by Friedrich Carl von Savigny and is part of modern German law.43 However, the 'abstract theory' that has been received in south African law does not in practice differ as much from the English (in case of goods statutory) reliance on the intention of the parties44 as might be thought45. It is instructive to repeat here the summary by Professor Goode:

> 'Whether a transaction relates to tangible or intangible property, four elements are essential if the intended


42 See, for example, Thomas, van der Merwe and Stoop (2000), pp. 165–169.

43 Per Karsten Thorn in von Ziegler et al. (1999), p. 183: 'The principle of abstraction (*Abstraktionsprinzip*): The act of disposal by which a right in rem is transferred is valid irrespective of the existence or the validity of the underlying obligational act. Thus the transfer of ownership does not depend on the existence or the validity of the sales contract. The transfer of ownership remains valid and the property of the acquirer unimpaired even if such a contract never existed due to lack of agreement between the parties or if it was rescinded later by one of the parties because of mistake. The seller may ask the buyer to transfer back the property under the principles of unjust enrichment (sec. 812, et seq., BGB) but in the meantime the acquirer remains the owner of the property with all legal consequences. ... While the principles of separation, speciality and tradition are known by several other legal systems within and outside of Europe, the principle of abstraction is a peculiarity of German civil law developed by *von Savigny* in the 19th century.'

44 Per Charles Debatista in von Ziegler et al. (1999), p. 135: '[T]he Sale of Goods Act 1979 [heavily amended in 1995] ... starts from the proposition that property passes from seller to buyer when the parties intend it to pass. According to section 17: "(1) Where there is a contract for the sale of specific or ascertained goods the property in them is transferred to the buyer at such time as the parties to the contract intend it to be transferred." Accordingly, the parties may and clearly do make the transfer of ownership dependent on some form or stage of delivery.

45 See for example the general statement in Kleyn and Boraine (1992), p. 75: '[I]n some countries, for instance England and France, the rule is that the real right is *ipso facto* transferred as soon as the contract has been concluded, irrespective of whether or not the thing to which that right relates has been delivered by the transferor to the transferee.' Of course, this was written before 1995 and may have been meant to characterise the general position in the (previous) English common law?
transfer is to be legally effective [in English law]. First, the person alleged to be the transferor must have had a title to the asset or a power to dispose of it. Secondly, he must have intended to divest himself of his title. Thirdly, he must have taken steps to effectuate that intention by an act of transfer or an agreement for transfer recognized in equity as a transfer. Fourthly, the property claimed to have been transferred must be identifiable as the subject-matter of the transfer agreement, either because it has been so identified in the agreement itself or because it has become identified as the result of its subsequent setting aside and appropriation to the agreement by an unconditional act of appropriation made in conformity with the agreement. 46

Nor does the South African position differ much from the causal theories of Netherlands 47 or Switzerland 48. In both of these causal systems as well as in the South African abstract system, the various forms of constructive delivery cannot function without elevating the intention of the parties to the dominating position as it apparently has in English law.

One of the most interesting forms of constructive delivery is attornment, whereby the res is not in the possession of either the transferor or the transferee but under the control of a third party, who holds it for the transferor and is then instructed to hold it on behalf of the transferee. For a valid transfer of ownership, all three parties must be ad idem and co-operate accordingly. 49


47 Per Richard Zwitser in von Ziegler et al. (1999), p. 237: 'According to Article 3:84 Section 1 of the Dutch Civil Code (BW) the transfer of ownership of goods requires delivery ... [but] without a proper cause, usually a valid sales contract, title does not pass into the hands of another person. ... Consequently, as a general rule void and cancelled contracts cannot be the basis for a transfer of ownership. The rescission of a contract because of breach does not affect a past transfer of ownership ... It is possible to pass possession by contract ...'

48 Per Alexander von Ziegler in von Ziegler et al. (1999), pp. 395-397: 'The golden thread through the law of ownership under Swiss law is the basic distinction between the act creating an obligation to transfer particular goods (Verpflichtungsgeschäft, also referred to as causa) and the act of disposing of those goods (Verfügungsgeschäft). ... However, Swiss law recognises several substitutions for direct delivery.'

49 See Kleyn and Boraine (1992), pp. 263-268. However, the analysis of SA Hyde (Pty) Ltd v Neumann 1970 4 SA 55 (O), by Kleyn and Boraine (1992) on p. 267 is (slightly) misleading, because in South African law (and in others), money can not necessarily be held as easily on behalf of others as property in general. In casu, the third party was an attorney and this is one of the exceptional cases in current South African law —
The general requirement of double consensus for the transfer of ownership means that a person can become neither an owner nor a possessor against his will; and conversely, an owner can be deprived neither of the right of property nor its possession against her will. The last means, per Jansen JA,

‘that the owner may claim his property wherever found, from whomsoever holding it. It is inherent in the nature of ownership that possession of the res should normally be with the owner, and it follows that no other person may withhold it from the owner unless he is vested with some right enforceable against the owner (e.g., a right of retention or a contractual right). The owner, in instituting a reivindicatio, need, therefore, do no more than allege and prove that he is the owner and that the defendant is holding the res — the onus being on the defendant to allege and establish any right to continue to hold against the owner.’

In international legal intercourse, the rule nemo dat quod non habet is mentioned in this context. The rei vindicatio is probably the most important proprietary action (in rem) whereby the owner can recover (possession of) the property and its fruits (or in some circumstances the appropriate price). However, when the property has passed (due to some error or otherwise), then the delictual actions in personam, actio legis Aquiliae and the various enrichment actions, such as condictio indebiti, are important. Property that has passed ‘... may be recovered by contiction, which is the normal remedy, but at the same time merely in personam. Condictio, except in the case of the condictio furtiva, always presupposes a valid transfer of ownership.’

see also the (Saxon) doctrine of mobilia non habent sequelam further below.

50 Chetty v Naidoo 1974 3 SA 13 (A) 20A–D, per Jansen JA. Similarly, Hefer v Van Greuning 1979 4 SA 954 (A) 959, per Jansen JA.
51 Or its longer Roman version ‘nemo plus iuris transferre potest quam ipse habet’ (D 50 17 54): ‘nobody can transfer a greater right than he himself has’ (Kleyn and Boraine (1992), p. 76).
53 See Grotius (1769/1903), Book III, Chapter XXX, about condictio indebiti for ‘recovery of what one has ignorantly paid as a debt, without being really indebted’ (para 4, p. 305), contictio promissi sine causa for ‘the revocation of a promise made without reasonable cause, that is, without donation or some other contract’ (para 12, p. 306) and contictio sine causa dati for ‘recovery of whatever one has given to another without lawful cause’ (para 15, p. 307).
54 Per van den Heever J in Ex parte Estate Kelly 1942 OPD 265 at 270.
In the context of the present study, the (formerly) important defence of *mobilia non habent sequelam* must be mentioned. This rule is apparently of Germanic origin and means that 'the holder of a real right who parted voluntarily with the possession of a movable [thing] to which his right relates, cannot follow it up if it has subsequently been acquired by a *bona fide* purchaser.' The applicability of *mobilia non habent sequelam* to an owner's *rei vindicatio* in modern South African law has been categorically denied. Kleyn and Boraine (1992) cite the following statement of Centlivres CJ as authority for this proposition:

‘If I seek to recover my property from a man in the street, he cannot be heard to say that he is under no obligation to restore it to me because he bought it from a third person and paid for it under the belief that that person was the owner of it because I allowed him to be in possession of it.’

There seem to be exceptions. For example, when the property is money — and by well established (internationally accepted) custom, any expectations of future purchasing power — then *mobilia non habent sequelam* dominates over *nemo dat quod non habet.* On doctrinal grounds, one can justify this by deeming money to be consumable and it 'is considered as consumed once it has been spent or mixed in such a way that the different coins and notes cannot be identified: *Inst 2 4 2; D 46 3 78; Voet 6 1 8; Woodhead Plant & Co v Gunn* (1894) 11 SC 4. For this reason [even] a thief becomes owner of stolen money when it becomes mixed with his own.' The real (natural) reason, however, seems to lie in the practical need for commercial efficiency and certainty — which apparently led to its application also to non-
monetary non-consumable movable property by many cities of the Netherlands at the time of Voet. \(^{60}\) 'Meubelen (and a fortiori money) hebben geen gevolg.' \(^{61}\)

**Payment of a duty to transfer property.**

In relation to ownership of expectations (or what tangible or intangible property carries those expectations), the term *payment* is generally used to denote the transaction which leads to the transfer of expectations from one owner to another. The unqualified term 'payment' in common English, French, German, Spanish and other usage is almost invariably associated with money in some way. Professor Sir \(^{62}\) Roy Goode, writing about contemporary English law, explains:

‘Payment in the legal sense means a gift or loan of money or any act offered and accepted in performance of a money obligation. So an act cannot constitute payment unless money is involved ...’. \(^{63}\)

South African law takes a similar position in respect of the obligation aspect, but differs significantly in respect of the monetary aspect. As Christie puts it:

‘[A]lthough we tend to use the word “payment” for the performance of an obligation to pay money, and “performance” for any other obligation, our usage is not consistent and the two words may be regarded as interchangeable.’ \(^{64}\)

In South African law, payment is traced back to Roman-Dutch law authorities, and through them to Roman law. Grotius defined it as follows:

‘7. Payment is the delivery of the thing which a person owes, made either by the debtor himself or by some one else on his behalf, provided he be competent to deliver, to the creditor being competent to receive.

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\(^{60}\) See for example Kleyn and Boraine (1992), pp. 479–480.

\(^{61}\) Per van den Heever J in *Ex parte Estate Kelly* 1942 OPD 265 at 269. A translation between Afrikaans and English is something like: ‘Furniture (en a fortiori geld) cannot be followed.’

\(^{62}\) As he now is.


\(^{64}\) Christie (2001), p. 467. Logically, Christie should have used ‘to transfer ownership of money’ instead of ‘to pay money’, to avoid the circularity in his definition.
8. Delivery: which may consist in doing or in giving, and by giving is generally understood transferring the ownership; 
...
9. Of the thing which a person owes, and not of anything else; for thereby the obligation would not be dissolved, unless with the consent of the creditor. ...\(^{65}\)

Schorer emphasised the consensual nature of payment in the above definition of Grotius: 'In order that payment may be properly effected it is essential that there should be consent and legal power on the part both of the payer and payee.'\(^{66}\) Notably, Schorer does not single out the delivery or any other component of payment — despite Grotius (and Roman law) having permitted delivery to be made '[t]o the creditor, and that even against his will; ...\(^{67}\). It is submitted that, now, there needs to be consensus in respect to all constituent parts of payment of property — see further below. Professor Johannes Voet defined payment as follows:

'Payment (solutio) sometimes includes any extinction and satisfaction of an obligation, e.g. when we say that a man solvit if he has performed what he has promised to do (Digest 50, 16, 176). This is the sense in the definition "an obligation is a tie of law by which we are placed under the necessity to pay something" (Institutes 3, 14). But in its specific meaning, wherein it differs from acceptilation, novation, and the numerous other methods of extinguishing an obligation, payment is the natural rendering of what is due (Institutes 3, 30 pref.).'\(^{68}\)

The translators, Swift and Payne, remind the reader 'not [to] forget to give the English words ['"payment" and "to pay"] the wide meaning of the Latin, which includes any act or forbearance whereby an obligation is fulfilled.'\(^{69}\) In some literature, the word discharge is used in exactly the same sense.\(^{70}\) Thus, payment is not necessarily associated with things or property and their delivery or transfer. However, when it is then

'[p]ayment must be made of the actual thing which is the subject of the obligation, and in the required manner, quantity and quality.'\(^{71}\)

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\(^{65}\) Grotius (1769/1903), Book III, Chapter XXXIX, p. 331.

\(^{66}\) Grotius (1769/1903), Schorer's Note CCCCLXXXIX, p. 673.

\(^{67}\) Grotius (1769/1903), Book III, Chapter CCCCLXXXIX, para. 13, p. 332.

\(^{68}\) Voet (1780/1907), pp. 130–131.

\(^{69}\) Voet (1780/1907), p. 170, n. 1.

\(^{70}\) See, for example, Geva (2001) at pp. 213, 223, 230, 272 and elsewhere.

\(^{71}\) Voet (1780/1907), p. 139.
With the creditor's consent, one thing can be paid in place of another (Code 4, 44, 3; Code 8, 43, 17 and 20), but not against his will (Code 8, 43, 16; Digest 12, 1, 2, 1), unless it be an obligation to do some act, in which case he [sic, debtor?] can pay compensation in place of such act (Digest 42, 1, 13, 1; Institutes 3, 16, 7); ... or unless the thing due has perished through default, or through such negligence as the debtor is bound to make good, since then of necessity the value must be paid in place of the thing (Digest 13, 3); or unless the debtor has no money and cannot borrow from anyone else, for in that case the creditor is bound to take the debtor's goods by way of payment at a valuation (Code 8, 43, 16 (Authentica hoc nisii)); ...

It is obvious that in the context of payment of property, there is no room for the abstract transfer of property (including money if owed). In a payment transaction relating to transfer of property, the law of obligations and the law of property overlap so significantly\(^7\) that only the preceding obligation can be the relevant iusta causa traditionis.\(^7\)\(^4\) Even though, in South African law, ownership passes due to a consensual delivery of property\(^7\)\(^5\), this cannot amount to payment if the parties are not ad idem in respect of the underlying causa. Oversight of the clear distinction between these two kinds of transaction — transfer of property and payment of (a duty to transfer) property — can make it very difficult to solve predictably many problems of contractual performance. Clearly, payment of money always causes the ownership of money to pass.

It has been emphasised often that payment of money is a consensual bilateral transaction, which requires the co-operation of both parties. Professor Goode states (as Mann\(^7\)\(^6\) characterises it) 'boldly':

'Payment is a consensual act and thus requires the accord of both creditor and debtor.'\(^7\)\(^7\)

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\(^7\)\(^2\) Voet (1780/1907), pp. 144-145.

\(^7\)\(^3\) The property and obligation aspects of the transaction cannot be separated without the transaction ceasing to be 'payment'.

\(^7\)\(^4\) In case of money payment, there seems to be no significant difference between English and South African law in respect of the preceding consensual obligation. There may be some difference in respect of the delivery of money.

\(^7\)\(^5\) For a discussion of payment in forma specijica or per aequipollens see Christie (2001), pp. 476-478, in general and Algoa Milling Co Ltd v Arkell and Douglas 1918 AD 145 at 158, Tucker's Land and Development Corp (Pty) Ltd v Aleco Investments 1981 1 SA 852 (T) and Van Diggelen v De Bruin 1954 1 SA 188 (SWA) in relation to money payment in particular.

\(^7\)\(^6\) (1992), pp. 74-75, n. 48.

\(^7\)\(^7\) Goode (1983), p. 14. However, with respect, Goode might be misunderstood when he continues immediately with: 'A tender which is
However, this is not the whole story — payment of money is logically a doubly consensual bilateral transaction with some multilateral extensions of delivery. It is submitted that this has support in the Roman-Dutch law. Consensus and co-operation is required both for the preceding obligation and (unless the underlying consensual contract determines otherwise) for the performance, which in the case of money payment obligation requires actual or constructive delivery of the corresponding quantity of expectations (sum of money). A putative payment of property (such as money) transfers property, but does not qualify as payment if there actually was no obligation to pay.

The general proposition that 'a third party may intervene and validly perform ... without the knowledge of the debtor and even against his will, provided the third party makes it clear that he is performing in the name and on behalf of the debtor' may be generally correct in the law of obligations but is clearly incompatible with the principles of transfer of ownership (of money) — that is to say, in relation to performance of duties which include transfer of property — and has been firmly rejected by the statement of Hefer JA, in Volkskas Bank Bpk v Bankorp Bpk (h/a trust Bank) en 'n ander 1991 (3) SA 605 (A), that 'betaling is 'n twee sydige regshandeling wat, tensy anders ooreengekom, die medewerking van beide partye verg.' He refers approvingly to not made in conformity with the contract between the parties ... produces payment if accepted by [the creditor] as a valid payment.' It seems, the creditor's acceptance 'as a valid payment' must then contain explicitly, tacitly or implicitly two different acceptances — acceptance of the tender and agreement to novation of the underlying contract. See also the corresponding discussion in Mann (1992), pp. 74–85.

78 See Schorer's comment on the definition of payment by Grotius above and the extensive treatment of the role of third parties in Voet (1780/1907) passim.

79 Christie (2001), p. 471. This is based on Voet's statement that 'even if any one pays on behalf of the debtor without his knowledge, or even against his will, the payment will stand, at least in so far that the debtor is thereby discharged, unless the obligation be for an act requiring technical skill ...' (Voet (1780/1907), p. 131.)

80 at 612C. In English: 'payment is a double-sided legal transaction, which, unless agreed differently, requires the co-operation of both parties.' Hefer JA rejects at 612D-E of the Volkskas case an earlier proposition made by Goldstone J in Rosen v Barclays National Bank Ltd 1984 (3) SA 974 (W) at 979E, that '... our Courts have before recognised that payment may be made without knowledge thereof by the creditor: see for example, Bousfield v the Divisional Council of Stutterheim 19 SC 64 at 70-1', as incorrect in respect of both the South African law and the interpretation of what De Villiers CJ said in the Bousfield case. For what it's worth, it is
Matador Buildings (Pty) Ltd v Harman 1971 (2) SA 21 (K) 25H and Saambou-Nasionale Bouweriging v Friedman 1979 (3) SA 978 (A), in which Jansen JA, at 993A-B, approves as correct the formulation of De Wet and Yeats: 'Behoudens enkele uitsonderinge, is voldoening 'n tweesydige regshandeling, wat slegs met die medewerking en wilsooreenstemming van albei partye kan plaasvind.81 Note, however, that the latter refers explicitly only to the consensus and co-operation in performance and not to the consensual nature of the creation of the preceding obligation.

4 Value and wealth.

Desirability of durables (44); Relative (market) values (46); Meaning of wealth? (47);
Common reference (49).

Desirability of durables.

It is important to understand that a present secondary durable does not increase the immediate material wellbeing of the owner during its ownership, because, by definition, it is not consumed or otherwise utilised by the owner. The secondary durable may, with some uncertainty, be exchanged for some desirables in the future and this expectation of future material wellbeing indeed often leads to a mental wellbeing (peace of mind) in the present time. It is also true that mental wellbeing has beneficial material effects on health, motivation and so on, but this is a secondary effect which can be attained by other means too, such as leisure. In so far as people do not project themselves beyond their death, secondary durables without an expectation of an exchange before death cannot rationally contribute to a present wellbeing. Even though humans are not (entirely) rational in this sense, indefinite accumulation of secondary durables without any aspects of primary desirability is not often observed.

One of many examples of traded durable with both primary and secondary characteristics is land, at least in and around economic centres. It is often kept because in the present era of increasing

submitted with respect that Goldstone J had the authority of Grotius on his side, but not that of Schorer.

81 In English: ‘Apart from a few exceptions, the performance is a double-sided legal transaction, which can only take place with the co-operation and consensus of both parties.’
population of the earth, it is becoming increasingly more valuable in respect of many other desirables and is expected to be exchangeable for ever increasing quantities of desirables in the future with relatively high certainty. However it has usually also some present utility as a productive capital good, or some personal entertainment use.

In a two-party economy, the decision to accept an exchange would be a relatively simple yes or no decision. In a modern complex economy, however, many potentially attractive exchanges need to be quantified with sufficiently high resolution, so that these exchanges can be ranked and the most attractive or useful one can be chosen by the individual. Exchanging a good or service for the same good or service makes no sense because of the wasted effort. Only dissimilar goods or services are sensibly exchanged. The physical properties of these goods or services are generally not compared by either of the parties. For example, neither the weight nor the colour of cheese and chair is compared in the above exchange. What matters is the personal perception of the relative individual necessity or utility of the exchanged goods and services. This comparison by a person is significantly subjective and very variable.

For example, the carpenter may have to have the first 5 kilograms of cheese in a month in order to survive. He may like to have another 10 kg because he likes the taste. He may take up to 15 kg more only if it is offered to him for free. But thereafter he has no further use or place for it. The carpenter does not have a fixed measure for the desirability of cheese — there is no fixed numerical value for this measure at any given point of time. Neither is there any fixed measurable value of the comparative desirability of cheese in relation to other desirables of the same carpenter.

Accepting that there is unlikely to be found any objective measure of personal attractiveness or desirability, one can ask whether the desirability of goods and services could be measured in a social context. This is what economists generally seem to assume and positive law systems rely on. Some of the associated problems appear already in a single bilateral exchange which happens if and only if both parties desire the exchanged goods or services with different intensity. Clearly, both parties measure the desirability or utility of the same good or service differently. If the painter did not consider 10 kg of cheese to be worth more than the picture simultaneously with the peasant wanting the 10 kg of cheese less than the picture, there would be no exchange. The
exchange takes place only because of the disagreement on the (relative) desirability of the exchanged goods and services!

For the painter it makes no difference whether the counter-party desires the painting for its own sake or for the expected future exchange. But for the peasant, there is a difference, because he not only has to trust that there will be something of utility for him later but he also has to guess what his own need or desire will be in some uncertain future, compare that to his present needs and desires in some quantitative manner, as well as guess the expected rate of exchange in the future in order to judge the attractiveness of the present exchange.

Relative (market) values.

The economic arguments can be based on the fact that for most basic goods and services there are many persons that offer one kind of good or service, or many persons who supply the other good or service in exchange. At any given time, there will be an average exchange ratio from which no supplier can deviate much in the same market, if somebody else with borderline expectations would replace the exchange participant with higher than average exchange demands. Another factor that helps to keep exchange ratios relatively close to some average is the fact that the production of practically all traded goods or services require scarce raw materials, other goods and services, and time which cannot be obtained for free. These arguments do not contradict the factually present exchange ratio differences in geographically different places\footnote{Exchange ratios between markets are kept relatively close by arbitrage. The persons trying to make a living from arbitrage are called arbitrageurs or speculators — depending on the point of view or envy. Other factors, like transport costs, keep exchange ratios different.} or exchange ratio variations over time and they are of no help for goods or services that are seldom or never exchanged. These arguments lead to the definition of the commercial or market value of one good or service in respect of another as the average exchange ratio in this market at a given time.

This value is relative and as arbitrary as the choice of the market and the good or service relative to which it is measured. Since the relative attractiveness of all goods and services changes over time, the exchange ratios change too — some faster than others. For example, 1 litre of milk may be worth 0.5 kg of raspberries in the summer but none in the winter, when there are no raspberries. One can equally well say that 1 kg
of raspberries is worth 2 litres of milk in the summer and an infinite amount in the winter. From this, one cannot deduce that milk has no desirability or utility in the winter, nor can one say that raspberries are infinitely more desirable than milk in the winter.

This definition of value is fruitful in economic studies where the averages are of primary importance. It is of somewhat lesser utility in law where the duties and rights of *individuals* have to be determined in some manner which should be morally or otherwise just\(^3\). The market value is only partially related to the *present material wellbeing* of the market participants, it is also affected by how all market participants compare their future material wellbeing to the present material wellbeing and for how long they are prepared to postpone the exchange of secondary goods for primary desirables.

The market value also depends on how the good or service is marketed. For example, the market value of a residential property at any given time may be much less or much more than the market value of its components — the building materials plus construction costs. Similarly, a milling machine may be sold at its cost of production plus, say, 50%, while its present value of the increased productivity may be much greater — or much less if there is no demand for the production. Some corporate raiders make a living out of buying companies and selling them in different forms at a profit.

**Meaning of wealth?**

Economists and others define *wealth* as the present (market) value of all tangible and intangible assets irrespectively of whether they contribute to the present material wellbeing or to the *expected future wellbeing*. This definition includes, among others, the person’s skills which can be utilised in the production of future goods and services. Wealth is reduced by debt and can be negative. In South African law, the word *patrimony* is used in the same sense.\(^4\)

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\(^3\) Law and justice have never been one and the same thing. Ethical (from Greek) or moral (the same thing from Latin) convictions may lead to rules in positive law, but are not in themselves law. See for example Rubin (1997) in the context of international law, who gives a very interesting overview of medieval European, ancient Greek (Plato, Aristotle) and older sources.

\(^4\) See for example Neethling, Potgieter and Visser (1999).
On the face of it, wealth seems to be as precisely measurable as the above defined market value. The reality is much more complex. Persons make only a part of their ‘wealth’ available for the market exchange. Hence, only the numerical value the exchange ratio of that part is measurable. The stored or consumed property may be strongly desired by many, but it has no (definite, average or any other) value until it is determined in a market exchange transaction. It is common knowledge that the exchange ratio depends very significantly on the quantity of goods and services offered for exchange and demanded in a market.

For example, if the painter had three paintings, two of which he kept secret, then the peasant would change his 10 kg of cheese for one painting as before. Could one then say that the wealth of the painter was equal to 30 kg of cheese? Not necessarily, because if the painter came to the market with all three of his paintings at the same time or if the peasant knew about the existence of them, then the single peasant on the market might have been able to get two paintings for the same quantity of cheese. In this case, the painter’s wealth would seem to be equal to 15 kg of cheese. This surely is not surprising, but what about the art-loving carpenter that exchanges his second chair for one picture from the peasant? In the first case his wealth would be equal to 20 kg of cheese, but in the second case only 15 kg. The last happens, because the carpenter changed the first chair actually for 10 kg of cheese, but the second chair for an equivalent of 5 kg. The value of the chair dropped relative to cheese between the first and second deal.

Since it never happens that all persons exchange all of their property at the same time, the wealth cannot be measured. At best, its expectation or some bounds could be estimated in special circumstances on the basis of good economic models and (expected) exchange ratio

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85 Two paintings were changed for 10 kg of cheese, each for 5 kg in average. Superficially, then, the third painting adds another 5 kg of cheese to the wealth of the painter.

86 As an aside, the above example shows how supremely important is market information to a rational market participant. Had the carpenter known about the painter’s hunger before the peasant found out, he might have exchanged first both chairs simultaneously for the 20 kg of cheese from the peasant and then get himself the two paintings from the painter for 10 kg of cheese.
supply and demand sensitivities. Hence, von Savigny's 'quantitative Behandlung des Vermögens'\textsuperscript{87} is not particularly realistic.

To the above problems with the market value and wealth we must add the following. In reality, the exchange parties almost never exchange at the same ratio. For example, the peasant may have to give 2 kg of cheese to the wagon driver to take himself and the other 10 kg of the cheese to the market (and back). If the painter has no transport costs, then he will exchange one painting for 10 kg of cheese. However, after all is said and done, the peasant exchanges one painting for 12 kg of cheese. If we ignore the different bilateral legal relationships, it makes no material difference to the exchange parties, if the peasant lives next to the market and instead the painter has to pay the wagon driver 2 kg of cheese for transport service, in order to have himself the 10 kg of cheese. The individual values of the painting, during the same exchange deal, are still 10 kg and 12 kg of cheese respectively.

Much greater value differences than the above 20% exist. In employment-related exchanges of labour for salaries, the marginal income taxes have often been around 40% to 50%. Again it makes no difference, if this tax is called income or labour-cost tax or whether it is collected from the employer or the employee. If, for example, the employer pays a middle manager 1000 rand for a day's work and the Receiver of Revenue taxes it effectively at 40% then the employer buys this person's service for 1000 rand but the employee sells the same service effectively for 600 rand. If we consider further that this amount is reduced by another 14% of VAT to 526 rand,\textsuperscript{88} before it buys any goods or services, then one might start thinking about laesio enormis! There are other costs that reduce the employee's value further.

\textit{Common reference.}

Without going into complicated mathematical analysis, it seems clear enough that for simplicity of economic intercourse all traded goods and services should be related to a single widely traded desirable. Furthermore, the available quantity of this common reference good or service should not change unpredictably in any market, so that one can

\textsuperscript{87} In English: 'quantitative treatment of the wealth.'

\textsuperscript{88} VAT is added to the seller's price: 526 + 14\% of 526 equals 600, rounded to the nearest whole number. If it was subtracted from the buyer's price we would have had 600 - 14\% of 600 = 516.
base exchange rate expectations on the availability of the other, potentially more variable desirables without the need to simultaneously consider the uncertain availability of the reference desirable. There are two extreme principal choices for the common reference. One would be the weighted sum of all traded goods and services\(^{89}\) in a chosen unit of time. This would lead to the real gross national product (GNP) or the real gross domestic product (GDP), both of which need a good national accounting system for evaluation and could not be used in earlier times. All separately identifiable traded goods and services would then be fractions of this single gross product, which changes over time, but generally less quickly than most components individually.

A much simpler, but not necessarily better, choice is to use a single reference, which is easily understood by and visible to simple people. These reference desirables should be durable and have as little primary desirability as possible in order to stay in the market in a constant, or at least predictable quantity. But if they are durable, then they qualify to be used as secondary durables for the purpose of carrying the rational expectation of future tradability. Once accepted by the market it would be difficult to break the self-perpetuating character of this common reference good that is also a generally accepted carrier of expectations.

Insofar as an expectation is intangible, it is not important whether it is carried by a tangible or intangible durable good, or is deemed to be itself a good for the purposes of economic exchange. The expectation itself of future production of marketable goods and services is accepted as part of a person’s patrimony in the law of delict.\(^{90}\) Nature has kept the quantity of some suitable tangibles more limited than the sand on the beaches or intangibles in general. Nevertheless, there is no fundamental legal or economic reason to exclude intangible goods from the role of serving as both the common reference and the carrier of expectations. It is not necessary that nature must keep its quantity limited, it suffices if the positive law makes it durable and limits its overall quantity in an economically sensible, legally enforceable and naturally just way.

\(^{89}\) The relative exchange ratios must be used for weighting the quantities traded.

\(^{90}\) Neethling, Potgieter and Visser (1999) p. 219. This is wider than the notion that a right to performance by somebody else is intangible property — see section 3 of this Chapter.
III Money

1 Primary meaning.

Money is quantity (51); Money is not a fundamental quantity of nature (52); Power of state over money (56).

Money is quantity.

From the discussion of rational expectations, value and wealth in Chapter II, it seems clear that human economic societies need a special kind of traded goods with at least the following two properties. They must be widely accepted as a common reference for measuring common exchange value and they must be generally accepted in exchange of any desirable both in the present as well as in the future. Hence, these goods must be continuously used in the commerce and must have the ability to be exchanged in practically arbitrary amounts against all other goods and services that are offered for exchange. Things that satisfy these requirements are commonly called money. However, the material embodiment of money has been changed so significantly during the recorded history that only the incorporeal aspect of rational expectations can be regarded as the most important persisting property of the economic and legal concept of money.¹ The following generic definition is suggested as the starting point:

Money is any durable² property that is firmly associated with a measurable quantity of freely transferable expectations, the unit of which is accepted by a society as a common reference desirable in exchange of goods and services.

¹ Direct support for the incorporeal aspect of money has recently been expressed in south Africa by Loubser and Swart (1999), p. 357: 'In essence, money is an incorporeal value or purchasing power quantified by monetary units. (Larenz Lehrbuch des Schuldrechts I 1 14ed (1987) §12 162–165.)' More subtle support is found in Goode (1995), pp. 492–500.

² In relation to goods, 'durable' is defined in Table 2-1 (section II 1) and explained in the associated text. The combination with 'property' is straight-forward and does not add anything to its meaning.
Money is not a fundamental quantity of nature.

In the current scientific understanding of physical nature, there are only five fundamental quantities: space, time, mass, energy, and electrical charge. None of them can be created out of nothing or vanish into nothing. Space and time are highly abstract notions and could be called incorporeal. They cannot be affected by humans. The other three are corporeal and can be influenced by humans in some ways which, according to present scientific evidence, cannot violate the (physical) law of conservation:

The growth rate of a quantity in a system is equal to the sum of the transfer rates of this quantity through the system boundary and the transformation rates of this quantity from other quantities inside the boundary.

The corresponding internationally standardised units are one second (1 s) for time, one meter (1 m) for length in any direction of the three-dimensional space, one kilogram (1 kg) for mass, one Joule (1 J) for energy, and one Coulomb (1 C) for charge. The measurement can be carried out by a direct comparison with a measuring instrument, like a measuring tape for length, or indirectly from other measurements by using laws of nature and other empirical relationships. An example for:

3 Physicists are considering the possibility of equivalence between some of these quantities. The best known seems to be the Einstein's equation of $m c^2$ (mass $m$ multiplied with the square of the speed of light in vacuum $c$) with energy. But this cannot be understood properly without determining the relationship between gravitational and inertial mass, which were assumed by Einstein (but not experimentally proven by anybody) to be equivalent. See also the present writer's work Eitelberg (1991b, 1991c and 1998), in this respect.

4 The present writer is not at all convinced by the proposition in Einstein's General Theory of Relativity that space is influenced by the gravity of (movable) mass. The notion of independent space in the classical physics is simpler and has not yet been contradicted by experiment.

5 Both, energy and charge are always associated with a body or bodies of finite mass. The photon may not have any so-called rest-mass, but it does have inertial mass in relevant experiments. Electric, magnetic, and other forces (or force fields) are not quantities and do not seem to exist without material bodies.

6 Eitelberg (1991a), p. 23. The quantity may be fundamental or some specific kind of the fundamental quantity. The origin of this law is not known to the present writer, but its use by others in the mathematical modelling of chemical engineering and other processes is acknowledged. The conclusion that this law has universal validity is the result of the present writer's own research and thinking.
the latter is calculation of the stored heat energy $Q$ from the measured temperature $T$, specific heat $C$ and mass $m$ of the body: $Q = mCT$.

The concepts of quantity and conservation of quantity seem to have been difficult in legal literature. Therefore two very simple examples are given here in order to leave no doubt about the fundamental difference between modern money as carrier of expectations and physical quantities.

**Example 1:**

Let the system of interest be a house and let the quantity refer to the number of *upright chairs* in the house. This quantity can be changed, as the *law of conservation* states, either by transferring (*transporting*) chairs into or out of the house or by converting some other quantity into upright chairs and converting the upright chairs into some other quantity. For example, the inhabitants may purchase chairs in a shop and carry them into the house, say, at a rate of one chair every five minutes *through the front door*. The number of chairs in the house changes exactly at the same rate — one every five minutes. This house may have a carpentry workshop, in which wood, glue and other quantities are transformed (*converted*) into chairs, say one every day. Again the number of chairs in the house changes exactly at the same rate.

The various transport and conversion rates are additive. For example, if as above one chair every five minutes is brought into the house, but a joker turns them upside down inside the house, also one every five minutes, then the rate of change of upright chairs inside the house is zero. One comes into the house and one is converted into a different quantity — from an upright into an upside down chair.

**Example 2:**

Say, somebody wants to thicken jam, made of very watery fruits, by heating 4 kg of jam on an electric cooking plate. The process begins at the room temperature of 20°C and ends when 2 kg of water has evaporated leaving 2 kg of the thickened jam. The dominant part of jam is water. Hence we can base the following simple modelling on the physical properties of water.

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7 The current scientific evidence does not allow for the creation of chairs out of nothing — it is always *from* some other quantity.
In this example, two quantities have to be modelled — the mass \( m \) of jam (essentially water) and the heat energy \( Q \) contained therein. The rates of change are by definition derivatives, \( \frac{dm}{dt} \) and \( \frac{dQ}{dt} \) for the mass and energy respectively. \( Q \) is changed in two ways: by inflow of heat from the cooking plate, say, of 3 kW of heating power,\(^8\) and by energy outflow through the evaporation process. \( m \) is changed by evaporation only, which is again caused by the same inflow of heat of 3 kW. During the heating phase of jam from 20°C to the boiling temperature of 100°C, evaporation is negligible. Hence, \( \frac{dm}{dt} = 0 \) and \( \frac{dQ}{dt} = 3000 \text{ W} \). The specific heat of water \( C = 4.2 \text{ kJ/(kg K)} \) at the normal atmospheric pressure and temperature. The heat energy in the water is related linearly to the absolute temperature of water \( T \) as \( Q = mCT \). Substitution of this expression into the differential equation of heat energy and division by the constant value of \( mC \) yields \( \frac{dT}{dt} = \frac{3000}{4200} = 0.18 \) degrees per second. To heat altogether \( \Delta T = 80 \) degrees, therefore, takes \( \Delta t = 80/0.18 = 444 \text{ s} = 7.4 \text{ minutes} \).

After the end of this heating period of 7.4 minutes, boiling begins. The temperature remains constant and it is not necessary to investigate the rate of change of energy because it is proportional to the rate of change of mass.\(^9\) The latent heat of evaporation is \( \Delta h = 2250 \text{ kJ/kg} \) at the normal atmospheric pressure. The mass of water is now modelled by \( \frac{dm}{dt} = \frac{3000}{2250000} = 0.0013 \text{ kg/s} \). To evaporate altogether \( \Delta m = 2 \) kg, therefore, takes \( \Delta t = 2/0.0013 = 1538 \text{ s} = 25.6 \text{ minutes} \).\(^10\)

The above solutions of the differential equations were so simple only because the respective right-hand sides were constant here. In most systems of practical interest, the right-hand sides vary with time and numerical solution methods have to be used generally.

\textit{Money} is not one of the physical quantities and arguably never was. Its intangible forms and the amount of expectations in the tangible

\(^8\) That is the maximum reliably obtainable electric supply power at the domestic supply voltage of 220 V through a circuit breaker with the current rating of 15 A — 220 V \( \times \) 15 A = 3.3 kW.
\(^9\) From \( Q = mCT \) with constant \( C \) and \( T \) we obtain \( \frac{dQ}{dt} = (CT) \frac{dm}{dt} \).
\(^10\) If the reader ever tries to thicken sweet jam at such high rate, then she would very soon notice the practicality of burnt jam on the cooking plate and elsewhere in the kitchen. Rapidly heated jam expands due to the below-surface bubbles of water vapour and flows over the edge of the pot.
TRADING WITH EXPECTATIONS

III Money

carriers can be created out of nothing and disappear into nothing. However, its continued acceptance by society seems to depend on it having, or approximating, most of the characteristics of a physical quantity. The creation and transfer of money must be understood and measurable with reference to some standardised unit. If the total quantity of money in an economy is varied, then this variation and its effect on the exchange ratios should be quantitatively predictable. Money as a generic term is not the reference of measure for other traded goods and services, rather its unit is.\(^{11}\)

As was pointed out above, the total amount of money that is available for exchange in a market affects generally the exchange ratio — the number of monetary units that are exchanged for a good or service. The same monetary unit of measurement is used to quantify the *amount of money* as well as the (monetary) *market value* of goods, services, or even other expectations that can be exchanged. Unnecessary confusion is created in very authoritative judgments and other literature by using the 'value of money' and the 'value of goods' without noticing that these two concepts are based on *unrelated references*. From the economic point of view, one can talk of the exchange ratio and even of the market value of a given quantity of money in terms of another traded quantifiable good or service. However, this remains totally meaningless unless this other reference is specified, which is usually not the case. No useful purpose is served by evaluating a given quantity of money in any other way than by simply counting its units. Nevertheless, counting alone does not help when a quantity of money is exchanged against another kind of money or its equivalent expectation is sought in a different time — present value of future amounts of money or future value of a present amount of money.\(^{12}\)

The measurement process of the value of all exchanged desirables except the money itself is fundamentally based on the actual exchange.

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\(^{11}\) Helfferich (1927), p. 364: 'In all cases which occur in practice we deal with money in specific sums, in specific quantities, and not simply with money *per se*. Money, like all quantitative conceptions, such as length, weight, bulk, can only be expressed by a multiple or a fraction of a fixed unit. In our systems of linear measures a specific length, such as the metre or yard, functions as a unit in which all lengths can be expressed, just as in our system of weights a specific weight quantity, such as the gram, is the unit or standard by which all quantities are measured. In the same way money requires a specific quantity to serve as the unit in terms of which all sums of money can be expressed.' This is approvingly quoted by Mann (1992) on p. 44. Apart from the fact that weight is not a quantity, this is correct in the present context.

\(^{12}\) These very important concepts will be explained later.
The result is generally uncertain and it is uncertain even when one kind of money is exchanged for another. Further significant uncertainty is caused by the occasional invention of close economic substitutes for money — such as credit — some of which become money when accepted by society (and permitted by law).\textsuperscript{13}

\textit{Power of state over money.}

It is not necessary, but the state may take an interest in the regulation of money and its transfer between persons. It may try to monopolise the issuing of money, it may prescribe that for certain transactions nothing else but money may be used. The state may prescribe that money payment obligations may be performed only by offering or transferring a certain kind of money, the legal tender. The legal tender may be declared as the only legally accepted and enforced money.

Money is a component in a person's wealth (patrimony), but it (like many other durables) does not contribute to the present material wellbeing. The future wellbeing depends on the reliability of the expectations. For example, a state has the ability to dramatically redistribute real wealth, without changing any legally recognised ownership, simply by invalidating exchange related expectations that are associated with a unit of money — the state has many ways at its disposal for this purpose. Other actors, such as banks, may do the same, and the state may be able to limit the banks' ability to manipulate the purchasing power of a unit of money.

2 Development of coins and nominalism.

\begin{quote}
\textbf{Monetary metal} (57); Nominalism (59); Fiduciary coins (63).
\end{quote}

The word 'money' and what it has signified in human economic activity has a long history. It seems, that most of the time money was synonymous with gold, silver or other things that may have been desired for their own sake too, or it was backed by gold and other goods. However, since about the early 1970s, all major economies of the world have substantially detached their money from any primary desirables. This money has some different properties from the old money.

\textsuperscript{13} See section 4 of this Chapter.
Economists are still struggling with its meaning — various definitions like M0, M1, M2, M3 or M4 are used by economists, bankers, politicians and others.

**Monetary metal.**

In earlier times, more trust was placed in the not arbitrarily changeable quantity of available silver (or gold, bronze, ...) as a carrier of the total amount of outstanding expectations. It did not matter much whether the expectations were measured in units of mass of the underlying metal or in multiples of a standard coin, or in fractional units as marked numerically on a coin. The coins have been in use as early as the seventh century B.C. in Asia Minor.14 *Originally* "talent", "as", "pound", "mark" and other monetary terms15 were names of weights. But when people, while continuing to use the name of the weight, acquired the habit of giving and receiving the coined metal piece not by weight but in reliance on the stamp, an independent [measure] came into being detached from the actual ... weight of the coin.16 In 1803, the French law identified the franc with 5 grams of silver, 9/10 fine.17 In 1928, however gold was used to define the franc as ‘constitué par 65.5 milligrammes d’or au titre de 0.900 de fin’18. In the United States, according to the so called Gold Standard Act of 1900, the dollar consisted of 25 and 8/10 grains of gold, 9/10 fine.19

Some people feel nostalgic about this supposed universality and independence of money. The recorded facts do not quite support this faith. Galbraith20, with references to reputable research, estimates that in

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15 Mann (1992), p. 45, adds the French ‘livre’ and Spanish ‘peso’ to this list.
16 Nussbaum (1950), p. 13. Nussbaum used the word ‘value’ instead of the inserted word [measure]. It is suggested that the latter is clearer in view of the danger of circularity associated with ‘value’. It is suggested here that the relationship between monetary and weight units may also have been in the reverse direction: in (unsophisticated) exchange transactions, widely circulating metal coins of some relatively constant size and weight have been used as the standard for weight — this is a personal childhood observation.
17 Nussbaum (1950), p. 2 and note 36 on p. 38 where it is explained that franc was prior to 1803 called livre.
18 Art 2 of the Statute of 25 June 1928. See also Mann (1992), p. 35. In English: ‘consisting of 65.5 mg of gold, containing 9/10 of pure gold.’
20 (1975), pp. 10–12.
Andalusia (Spain) the prices rose about fivefold between 1500 and 1600, which is after discovery of America and some very productive silver mines. After some delay, the prices in England of the decade from 1673 to 1682 reached 3.5 times of the level before Columbus. The delay is explained by the fact that the additional money/silver\(^{21}\) was transported from America directly into Spain and this silver reached other European countries only gradually through trade and other channels. This historic record supports strongly the proposition that prices are influenced inversely by the quantity of money used in relation to the quantity of goods and services traded.\(^{22}\)

In addition to the increasing availability of the ‘monetary’ metal, the precious metal content in a coin with the same stamped monetary unit has been steadily diminished (with rare reversions) by the minting authority from the mass that was indicated by the original monetary/weight unit. For example, in Rome the pure silver content of the denarius was about 4.55 grams around 200 B.C., but 3.41 grams at the time of Nero (A.D. 54-68); and the price of a pound of gold was about 1 thousand denarii at the time of Augustus\(^{23}\), but no less than 3.3 million denarii by A.D. 419.\(^{24}\) In England ‘the penny of sterling silver was debased between the tenth and nineteenth centuries from 24.00 to 7.27 grains troy.’\(^{25}\) On the 31\(^{\text{st}}\) of January 1934, President Roosevelt’s Proclamation reduced the gold content of a dollar from 25 and 8/10 grains to 15 and 5/21 grains, 9/10 fine. This proclamation is noteworthy, because the United States had discontinued minting of gold in 1933 and minting was definitely prohibited by the Gold Reserves Act of January 30, 1934.\(^{26}\) Despite the prohibition of putting 15 and 5/21 grains of gold into a one-dollar coin, Nussbaum suggests that the legislative pronouncement obliged the American authorities to see to it

\(^{21}\) Galbraith (1975), p. 14. Galbraith estimates that the English wages rose only by a factor of two during the same time.

\(^{22}\) Another important (proportional) influence is the velocity of money circulation — this will be elaborated further ahead.

\(^{23}\) 63 B.C. – 14 A.D.; first emperor of Rome.

\(^{24}\) Mann (1992), note 32 on p. 93.


\(^{26}\) Nussbaum (1950), pp. 2–3.
that each dollar (in whatever disguise) would be exchangeable for 15 and 5/21 grains of gold, 9/10 fine, in an appropriate market.  

This brings us to one of the numerous legal problems that have caused complex arguments and contradictory judgments over centuries. Is the precious metal in the coin money or is the coin itself money? It is submitted here that neither of these material embodiments are in themselves money — the quantitative association of expectations with one or the other is the only thing that really matters. If the sovereign law-giver decides that the quantity of metal (in bullion or in minted form) is associated with a given amount of exchangeable expectations then this is so. If however, the law-giver decides that a coin called ‘pound’ must be accepted by its subjects as signifying the same amount of expectations independently of its form, size, or (precious) metal content, then that will be so. There is no law of nature that would be violated by either modality of regulating exchange transactions in a state.

Most of the older elaborate legal arguments are, for present purposes, of little more than historic interest. All that really matters is that in the first case the market value of goods and services in reference to a kg of the metal is influenced by the total mass of available metal, whereas in the second case the market value of the same goods and services in reference to one standard coin is influenced by the much more flexible number of minted and available coins with multiples and fractions of the same denomination. Both market values are determined not by the law-giver but by the ever-changing supply and demand as well as the available quantities of both, the money and the goods or services in the relevant markets. It should not be difficult to guess, why the coin-based money has been generally preferred by the sovereign authorities and also why there has been very strong resistance to it.

**Nominalism.**

It does not seem clear if Roman law took the metal or coin related view, or vacillate between the two. However, the medieval canon law

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27 Nussbaum (1950), p. 4. It is not clear, without further investigation, if this meant that any holder of a dollar had a right to this amount of gold, or if this was a purely ‘administrative direction’ to the monetary authorities — see also Mann (1992), p. 39.

28 Both Nussbaum (1950) and Mann (1992) review this development extensively.

29 And its economic substitutes.
tended to link money to the quantity of metal until 'a decisive reaction set in after the publication in 1546 of Carolus Molinaeus's (Dumoulin's) *Tractatus contractuum et usurarum*. In this work, interpreting [a certain dictum of Paulus] by the words, "Quantitas, id est valor impositus", the author laid the foundations of the nominalistic principle as now understood. Dumoulin's ideas, being so agreeable to the princes whose financial interests demanded a theoretical basis for their practice of debasing coins, were readily accepted in France ...\(^{30}\) and elsewhere. As Nussbaum points out, the term *nominalistic* '... stems from scholastic philosophy where it was antithetical to "realism". In its monetary application it is a bit oblique, inasmuch as reference to the "name" (*nomen*) of money does not convey the idea — "numeralism" would perhaps be more exact —, but "nominalism" sufficiently indicates the formal quality of the approach as contrasted with the "metallistic" one.\(^{31}\) Mann, however, prefers to link nominalism to the old Greek word *nomisma* and refers to Aristotle's *Nichomachean Ethics*\(^{32}\) for the following quote: 'Money has been introduced by convention as a kind of substitute for a need or demand, and this is why we call it νόμισμα [nomisma], because its value is derived not from nature (φύσις [fysis]) but from law (νόμος [nomos]) and can be altered or abolished by will.'\(^{33}\) Aristotle should not be accused of having been a scientist\(^{34}\) in the modern sense of the word, so it is futile to criticise him for his dogmatic attitude to value.

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\(^{30}\) Mann (1992), p. 93. At that time, most issuing authorities (princes and kings) in Europe were not entirely sovereign and could not easily ignore the authority of the church (canonic law). Dumoulin's work preceded the Peace of Westfalia by a century. That settlement of 1646–1648 is, with good reason, usually taken to signal the end of divine law, religious and dynastic conceptions, as the basic model for statesmen and scholars ... and its replacement with the notion that the political world is organized into "states" whose relations with each other are secular, not based on the acceptance of any particular religious writings or institutions as the source of authority or substantive rules of law; and on the equality of those states before the "law".' (Rubin, 1997, p. 18)

\(^{31}\) Nussbaum (1950), p. 17.


\(^{33}\) Mann (1992), p. 92. Mann does not seem to completely reject the alternative translation of νόμος — as convention or usage, instead of law.

\(^{34}\) Beckmann (1993), p. 40, submits that the teachings of the Greek philosopher Aristotle (384–322 B.C.) held up the progress of science for close to 2000 years and that '[h]is ignorance of mathematics and physics, *compared to the Greeks of his time*, far surpasses the ignorance exhibited by this tireless and tiresome writer in the many subjects that he felt himself called upon to discuss.'
Actually, it is not the fault of Aristotle that the medieval Church eventually promoted him to such scientifically undeserved prominence — instead of another old Greek authority like Archimedes of Syracuse (ca. 287–212 B.C.). Then again, the word ‘science’ itself was mutilated for a long time, as Professor Petr Beckmann explains:

'Scientific research, wrote Tertullian (160–230), had become superfluous since the Gospel of Jesus Christ had been received. Tomaso d'Aquino (St. Thomas, 1225–1274) wrote that there was no conflict between science and religion; but by "science" he understood Aristotle's tiresome speculations. The medieval Church never made St. Thomas' mistake of confusing the two: It promoted Aristotle to some kind of pre-Christian saint, but (except for a very modest amount of third-rate work within its own cloisters) persecuted science almost wherever it appeared.

Scientific works and entire libraries were set to torch kindled by the insane religious fanatics. ... Bishop Theophilus ... destroyed much of the remnants of the Library of Alexandria (391). The Christian Roman emperor Valens ordered the burning of non-Christian books in 373. In 1109, the crusaders captured Tripoli, and ... burned over 100,000 books of Muslim learning. In 1204, the fourth crusade captured Constantinople and ... the classical works that had survived until then were put to the torch by the crusaders in what is generally considered the biggest single loss to classical literature. ...'

Only about half a century after its publication, Dumoulin's work virtually permanently settled the English law in the famous Case de Mixed Moneys and it could not have left such, almost contemporary, Roman-Dutch authorities as Grotius unimpressed. Mann considers Gilbert v. Brett (1604) still to be the leading authority both in England and America and his interesting summary deserves to be quoted verbatim:

'Gilbert of London had sold goods to Brett of Drogheda for "£100 sterling current and lawful money of England" to be paid in Dublin. Before the sum became due, Queen Elizabeth, by proclamation, recalled the existing currency of Ireland and issued a new debased coinage (called mixed money) which was declared to be "le loyall and currant money de cest realme de Ireland". Every creditor was

35 As Beckmann (1993, p. 70) puts it ironically: 'Aristotle used his lofty intellect to deduce that heavier bodies fall to the ground more rapidly; that men have more teeth than women; that the earth is the center of the universe; that heavenly bodies never change; and much more of such wisdom, for he was a very prolific writer.'


37 Gilbert v. Brett (1604) Davie's (Ireland) 18, 2 State Trials 114.

38 Mann (1992), p. 96 and note 53.
bound to accept it, a refusal to accept it "solong le denominatio ou valuatio" being punishable. Tender was made in the debased coin, and the question which the Privy Council of Ireland asked the Chief Judges to decide was whether or not it was a good tender. The reporter first dealt with the necessity of having a certain standard of money in every commonwealth and with the King's right to make money, to determine its substance and form and also its value. He goes on to state that

"i doubt prima facie fuit, come cest mixt money serra dit sterling. Et pur le cleering de cest doubt, fuit dit que en chescun coine ou piece de money est bonitas intrinseca et bonitas extrinseca. Intrinseca consistit in valuatione seu denominatione, and in forma seu charactere. Budelius de re nummaria lib. 1 cap. 7. Et cest bonitas extrinseca, que cest auxy dit aestimatio sive valor imposititius est formalis and essentialis bonitas monetae; and cest forme dat nomen and esse a le money: car sans tiel forme le plus precious and pure metall que poet estre nest pas money. Et pur ceo Molinaeus libro de mutatione monetae dit, non materia naturalis corporis monae, sed valor imposititius est forma et substantia monetae, quae non est corpor physicum sed artificiale, come Aristotle dit Ethicorum lib. 5."

Thus the result was reached that the mixed money, having the impression and inscription of the Queen of England and being proclaimed for current and lawful money within the kingdom of Ireland, ought to be taken and accepted for sterling money. The reporter then turns to the constitutional question whether the mixed money circulating in Ireland could be said to be current and lawful money "of England" within the meaning of the contract. After having given an affirmative answer, he proceeds to examine the importance of the fact that, at the time when the contract was made, better money was in circulation. This was, however, considered to be irrelevant. "Car le temps est future", that is to say, if the said Brett shall pay or cause to be paid one hundred pounds sterling current money. "Et pur cee tiel money serra pay que serra currant a tiel future temps, issint que le temps del payment, and nemy le temps de contract, serra respect."

The case is thus a clear authority for the nominalistic principle that the obligation to pay £100 sterling is to pay what the law denominates as £100 sterling at the time of the payment.

This principle, which by the seventeenth century was clearly established, also in Scotland, has never been departed from. To a considerable extent this is to be attributed to the remarkably patriotic spirit which the British people displayed in periods of crisis.

It is submitted, that the nominalistic principle is subservient to despotic authority, patriotism is generally not a rational explanation, and

39 Sir John Davies.

40 Mann (1992), pp. 96–98.
there is no reason to be proud about its establishment in England. About
the only thing to be proud of, is the apparently lesser abuse of
nominalism in England than in many other states. There is no evidence
of serious reasoning in the quoted sections of the report of Gilbert v.
Brett. The decision seems to have been based entirely on the authority of
Molinaeus and Aristotle. Mann himself mentions contrary views, that
may have (at least persuasive) authority. In 1604, authority was of a
different nature from that of today and precedents should not lightly be
sought in such scientifically intolerant and primitive time of Europe. For
example, only four years earlier, 'In 1600, Giordano Bruno was burned
alive in Rome for claiming that the earth moves round the sun. In 1633,
the 70-year old Galileo Galilei went through the torture chambers of the
Inquisition until he was willing to sign that [he] abjure[d], curse[d] and
detest[ed] ... [his similar] errors and heresies ...'41

The principle of nominalism did not immediately abolish the
linkage to the amount of precious metal in a coin with a given
denomination — it merely made it possible for the issuing authority to
change this amount at its sole discretion. However, the limit of no metal
content at all, follows logically from this principle. Although it was
generally made illegal and severely punishable to issue (counterfeit) coins
without legal authority42, it was either not prohibited,43 or when it was
prohibited,44 then not easily avoidable for older coins with greater
precious metal content to be melted down or to be sold privately at a
premium for current lawful money — within or outside the relevant
jurisdiction.

Fiduciary coins.

This change from the metallistic to the nominalistic doctrine, in
essence, meant that the expectation of future exchange against
desirables was no longer based on knowledge of the availability of some
fashionable precious metal, but became more and more dependent on
trusting and hoping that the applicable positive law would enforce the
continued acceptability of the fiduciary coins of given denomination. The

42 Nussbaum (1950), p. 41: 'In France since 1347 the punishment was,
for a long period, boiling to death.'
44 Nussbaum (1950), p. 64.
sovereign authority had such a strong influence on economic activity that it would have been too cumbersome to use the precious metal itself as the carrier of expectations in frequent transactions. For relatively longer storage of expectations though, the precious metal certainly had some natural advantages — this was recognised by the issuing authorities.

3 Development of banking and paper money.

Fiduciary (paper) money; Rise of modern banking; Credit transfer; Rise of banking in South Africa; International banking; Central banking; Resistance to paper money; Fiat money.

Fiduciary (paper) money.

A slight variation to the gradual movement away from precious metals was achieved by removing the precious metal entirely from the 'coins', keeping it as a reserve in some strong-room of the sovereign authority, and declaring that any holder of official fiduciary money could exchange it against the reserved precious metal. Since not everybody needed the precious metal at the same time, this made it possible for the money issuing authorities to keep a lesser quantity of the precious metal in reserve than would have been necessary if the equivalent amount had been included in each coin. In fact, in such a system, there was no longer any need to use metal coins. Although, to date, cheap coins have not yet completely disappeared, the even cheaper to produce fiduciary (convertible) paper money became gradually dominant.

Rise of modern banking.

This transition to paper money was strongly influenced by the rise of banking towards the end of the Middle Ages.

‘Banking had a substantial existence in Roman times, then declined during the Middle Ages as trade became more hazardous and lending came into conflict with the religious objection to usury. With the Renaissance it revived as trade revived and religious scruples yielded in normal fashion to pecuniary advantage. So far as any business can be given ethnic association, banking belongs to the Italians. Both the decline and revival were in Italy; no bankers since, not even the Rothschilds or J. Pierpont Morgan, have equaled the Medicis in grandeur, the grandeur being substantially enhanced by their being the fiscal agent of the Holy See. The banking houses of Venice and Genoa are the recognized precursors of modern,
everyday, commercial banks. Almost as advanced were those of the Po valley, and, as money lending developed in London, it was natural that the street on which it settled should be named for the Lombards.45

This Italian banking revival took place in the thirteenth fourteenth and fifteenth centuries. In the rest of Europe, banking seems to have started to develop in the seventeenth century. For example, the public Bank of Amsterdam was established in 1609 primarily to solve the problem of close to a thousand different gold and silver coins in various stages of wear and adulteration. The bank received all of these foreign and local coins, determined their precious metal content, deducted a small fee for its expenses and gave credit on its books for the remainder. Similar institutions were soon established in Rotterdam, Delft and Middlebourg.46 The remaining history of the Bank of Amsterdam is quoted directly from Galbraith:

'For a century after its founding it functioned usefully and with notably strict rectitude. Deposits were deposits, and initially the metal remained in storage for the man who owned it until he transferred it to another. None was loaned out. In 1672, when the armies of Louis XIV approached Amsterdam, there was grave alarm. Merchants besieged the Bank, some in the suspicion that their wealth might not be there. All who sought their money were paid, and when they found this to be so, they did not want payment. As was often to be observed in the future, however desperately people want their money from the bank, when they are assured they can get it, they no longer want it.

In time, however, there came a turn for the worse. A companionable relationship had always existed between the mayor and members of the Senate of the City of Amsterdam which, more than incidentally, owned the Bank, and the directors of the Dutch East India Company. Often they were the same men. In the seventeenth century the Company had been an exceedingly solid enterprise, although it often needed short-run accommodation for outfitting ships or until the ships came in. Such loans the Bank came to provide out of the funds on deposit to the account of others. This was a small step towards what, for the modern, everyday commercial bank, is the most orthodox of operations. Then, toward the end of the seventeenth century, the East India Company began to do less well. Its deficits and debts increased, and in the eighteenth century things got even worse. In 1780, the war with England brought heavy losses of ships and cargos, and the Bank became yet slower to pay. The City government also began hitting the Bank for loans. Now, were all depositors to come at once for their money, all

46 See generally Galbraith (1975).
could not be satisfied. Some of the money would be away in uncollected or uncollectible loans to the Company or City. Previously merchants, accepting payment for goods and debts, had taken bank deposits at a premium over the more dubious coin that was the alternative. Now, suspecting trouble at the Bank, they took payment by transfer of bank deposit only at a discount. And presently the Bank began to limit the amount of coin that could be withdrawn or transferred to another bank. Refusal or inability to make good in coin on deposits was, in days to come, to be the certain signal that a bank was in trouble — that, however the action might be explained, the end was in sight. For the Bank of Amsterdam the end came in 1819. After two centuries and a few odd years of service its affairs were wound up.\(^{47}\)

One of the earliest forms of banking was carried out by wealthy international merchants who kept monetary assets at various points along the trade routes. For a certain consideration, a merchant stood prepared to accept instructions to pay money to a named party through one of his agents elsewhere; the amount of the bill of exchange would be debited by his agent to the account of the *merchant banker*, who would also hope to make an additional profit from exchanging one currency against another. Because there was a possibility of loss, any profit or gain was not subject to the medieval ban on usury.

Another form of early banking activity was the acceptance of *deposits*.\(^{48}\) These might derive from the deposit of money or valuables for safekeeping or for purposes of transfer to another party. English bankers in particular had by the seventeenth century begun to develop a deposit banking business. The London goldsmiths kept money and valuables in safe custody for their customers. In addition they dealt in bullion and foreign exchange, acquiring and sorting coin for profit. As a means for attracting coin for sorting, they were prepared to pay interest. This interest may have been their main advantage as deposit bankers over the ‘money scriveners’. The latter were notaries who had specialised in bringing together borrowers and lenders; they also accepted deposits.\(^{49}\) Customers generally preferred to keep their surplus money with the goldsmiths. The result was idle cash that could be lent out at interest to other parties.

\(^{47}\) Galbraith (1975), pp. 16-17.

\(^{48}\) These were deposits in the correct legal sense of the word, because originally the ownership did not pass to the bank. Modern bank ‘deposits’ are not really deposits, because ownership of the ‘deposited’ money passes to the bank.

Credit transfer.

In England, but not so early on the continent, a practice grew up whereby a customer could arrange for the transfer of part of his credit balance to another party by addressing an order to the banker. This was facilitated in England by an early legal recognition of the negotiability of credit instruments or bills of exchange. This was the origin of the modern cheque, one of the bills of exchange. Continental countries, on the other hand, limited negotiability and developed the giro payment system, whereby transfers are effected on the basis of written instructions to debit the account of the payer and credit the account of the payee. At about the same time the goldsmith bankers of London developed the use of banknotes. The first banknotes in Europe were issued by the Bank of Stockholm in 1661. Paper money was used earlier in China, during the Ming dynasty (A.D. 1368–1399) but its utilisation by government was apparently perfected by the Americans. Nowadays, issuing of banknotes is generally the prerogative of the central banks.

The continental reluctance to use cheques or paper money may have had something to do with the French experience with a Scottish banker John Law. Law came to France in 1716, in flight from a murder charge in England after a successful duel. Having run through a considerable inheritance, he had made his living for some years as a gambler. Previously, in Scotland, Holland and Italy, Law had failed to raise interest in his idea for a land bank that would issue notes to borrowers against the security of the land of the country.

In France, Law was lucky. Louis XIV had died before Law’s arrival and left the country practically bankrupt. In this desperate situation, Philippe, Duc d’Orléans, the Regent for the seven-year-old Louis XV, in 1716 authorised Law and his brother to establish the Banque Générale with capital of six million livres and to issue notes which were promised to be convertible to gold and silver at demand. The notes were issued by the bank in the form of loans. The principal borrower was the state, who used the loans to pay its expenses and its previous creditors. In the first months, Law had great success. The additional money led to increased prices and general business revival. Despite the initial lack of legal compulsion, nobody doubted in its convertibility to precious metal. In 1718, the bank was transformed into Banque Royale and its notes were

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made into legal tender with the compulsion on the French subjects to receive this money according to its denomination.\textsuperscript{52}  

However, it seems, the regent and John Law became greedy and issued more notes and loans to the government. In order to keep up sufficient public demand for the notes, Law 'invented' the Mississippi Company to exploit and to bring to France 'the very large gold deposits' from Louisiana. It seems to have been a huge scam from the very beginning. In the words of Galbraith:

>'Law was lending notes of the Banque Royale to the government (or to private borrowers) which then passed them on to people in payment of government debts or expenses. These notes were then used by the recipients to buy stock in the Mississippi Company, the proceeds from which went to the government to pay expenses and to pay off creditors who then used the notes to buy more stock, the proceeds from which were used to meet more government expenditures and to pay off more public creditors. And so it continued, each cycle being larger than the one before.'\textsuperscript{53}

Law was the most highly regarded man in France and became the first (and last) Duc d'Arkansas. By the end of 1719, far more than a thousand million livres of notes had been issued. The shares of the Mississippi Company rose phenomenally in 'value'. Men who had invested a few thousand paper livres early in the year were worth millions in a matter of weeks or months. They were called millionaires.

In early 1720 however, some people started to exchange paper money for 'wagon loads of gold and silver' and the bubble burst. Law escaped from France where he left broken fortunes, depressed business and 'exceptionally durable suspicion of banks and banking'. Only after the French revolution, Law's original idea of paper money backed by land was revitalised. In 1790 the lands of the Church and the Crown were used as the backing for the issued money.

During the course of the eighteenth century, London superseded Amsterdam as the world centre of international trade and finance. According to Galbraith, commercial banking 'belongs' to the Italians and the central banking to the British. However, the government issued paper money 'belongs' to the Americans. An interesting fact is that the American colonies of England were not permitted to establish banks. It is thus not too surprising that the American Revolution was financed by

\textsuperscript{52} Nussbaum (1950), p. 46, note 6.

\textsuperscript{53} Galbraith (1975), p. 25.
government issued paper money. Since the independence Americans have formed very large number of often very small banks. Furthermore, the laws forbid banks to operate beyond state boundaries. This has been one reason for the dominance of unit banking in America with the exception of the state of California. The large number of small banks often failed. In England, on the contrary, branch banking dominates and bank failure is almost unknown.

*Rise of banking in South Africa.*

Before 1820, most of the present-day South African trade was done by barter. The non-barter trade was based on non-local currency and with promissory notes and bills of exchange. The latter were restricted in 1822 to relatively large sums of over 50 Rixdollars only. The first private bank in the Cape was the Cape of Good Hope Bank, established before 1836. The South African Reserve Bank was established in 1920. It is privately owned but under strong influence of the government.

*International banking.*

The Amsterdam and other Dutch bankers of the seventeenth century were international bankers in so far as their clients were practically all international merchants. During the course of the eighteenth century, London superseded Amsterdam as the world centre of international trade and finance. Until the Napoleonic War, eminent international houses like Barings (London), Steiglitz (Moscow), and Parish (Philadelphia) were satellites to Amsterdam. Amsterdam's international pre-eminence was terminated by its French occupation. However, the leadership position of Barings had not a lot to do with its natural growth before the French occupation of Amsterdam. It had more to do with Barings' willingness to take risks in financing the wartime growth of British trade. The same circumstances were used by the second-generation Rothschilds in their rise to dominance, except that they facilitated financing of the British allies.

Since the Second World War, Swiss bankers have become dominant in the international banking. This they obtained by the

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54 Jones (1988).
55 See the section on Constitutional situation in Chapter IV.
56 Jones (1988).
internationally accepted Swiss neutrality. In 1802, Napoleon guaranteed Swiss independence and neutrality not out of noble intentions but for purely pragmatic reasons — this has been followed by all statesmen since. As a curiosity, many Swiss banks are partnerships in the common law sense and are hence managed very conservatively. Risk taking has not been necessary because of surplus of depositors, who value the Swiss Banking secrecy above interest rates. In fact, foreigners have had to pay interest for the Swiss banks to accept their money.

Central banking.

A special place among the banks in any country is taken by the Central or Reserve Bank. The Central bank is often closely controlled by the government which may own it. The central bank has nowadays three primary functions: control of banking, execution of monetary policy, and lending at last resort. It may also lend money to the government, but it is generally not involved in fiscal policy. The role of the Bank of England is difficult to under-estimate in the rise of London to international dominance. Since 1802, it liberalised its support of the banks by not excluding bankers on ethnic grounds. Thus some very successful Jewish bankers felt encouraged to move to London. Nathan Rothschild from Frankfurt and Heine from Hamburg were dominant examples and competed successfully with the Christian bankers.

Resistance to paper money.

The development of paper money by banks and governments may be unspectacular from the economic point of view, because it served to back the expectation of future exchange at all stages of its development, as coins had done previously and continued to do so. But its legal analysis is very interesting. For a long time, the notes of bank and government were not considered to be money. Despite the fact of being denominated in terms of a current and lawful monetary unit, both were in law merely unilateral promises to pay the indicated amount of money on demand to the holder. Banks had issued paper money earlier, but the authorities generally were not interested in lending their authority to it.

57 Fehrenbach (1966).
59 See Geva (1987) for a persuasive analysis of the emergence of paper money in the seventeenth and eighteenth century England ‘as a by-product of the evolution of payment mechanisms’ (p. 144).
Apparently typically, in 1806, the French Tribunal to the Corps Legislatif analysed the notes of the Banque de France and found that

'[c]es billets n’auront jamais de cours forcé. Nous en avons pour gage la parole sacrée de [Napoléon]. Sa Majesté a voulu qu’il fut bien clairement exprimé que jamais aucun papier-monnaie, aucune altération des monnaies n’auraient lieu. Les billets de la Banque ne seront toujours, aux yeux de l’État, que des billets de confiance, et jamais il ne les reconnaîtra comme obligatoires.\footnote{Nussbaum (1950), p. 47, note 8. The emphasis is added. An English translation is offered as follows:}

Nevertheless, government issued paper money could just as easily be enforced by the authority of the state as the nominalist doctrine was enforced with respect to coins with little or no precious metal in or backing them.

The expectation of future exchange was backed by the personal promise of the issuing bank (or the government) to perform its payment obligation. The note was merely an evidence of this indebtedness of the issuer \textit{erga omnes} and not itself the thing that embodied the expectation. However, it was not easy to find a legally enforceable obligatory link between the creditor (the holder of the note) and the debtor (the issuer) without legislative enactment. There was no contract in the generally accepted sense and it is not clear how the common law prohibition of usury could have helped a holder of the note to enforce his claim against the issuing bank that had never had any dealings with this person. In modern terms, the bank note was a negotiable instrument. Nevertheless, as long as the government or the issuing bank could be trusted to 'stay in business' and pay the denominated money when required, these paper notes were perfect economic substitutes for the official money. It seems that the general public did not rely on trusting the issuer or any potential legal enforceability as much as on the expectation of continued acceptance of these notes by the other members of the general public. The legal hair-splitting did not seem to matter very much in general.

\footnote{These notes of Banque de France will never be forced into circulation. We are supported by the authority of Napoléon's sacred word. His Majesty desires to express very clearly that there will never be any paper-money, or any other alteration of money. The notes of the Bank will always be, in the eyes of the State, nothing but notes of trust, and the State will never recognise them as obligatory.

Note how the public's expectations, about what these notes would buy, were separated from the legal duty to offer or to accept these notes.}
While it is difficult to imagine an economic system without a sovereign authority, banks do go out of business occasionally. The respective bank's promissory notes could be honoured only as long as the issuer existed. Individuals could still continue to offer the bank notes of a non-existing bank in exchange for goods and services and these notes could even be accepted voluntarily. However to expect any help from positive law would be naive. The situation is different in respect of notes issued by a sovereign authority. There was no practical reason to continue regarding government notes as evidence of the sovereign's personal obligations to pay the corresponding sum of fiduciary coins whose precious metal content could be (arbitrarily) changed by the same authority. Just as the number of issued coins was limited by their metal content or by the precious metal backing, the paper notes could be backed directly by the same reserve of metal.

The above illustrated uncompromising French resistance contrasts with the earlier legal developments in English law. Already in 1758, Lord Mansfield gave his approval to the Bank of England notes thus:

'Now they are not goods, not securities, nor documents for debts, nor are so esteemed: but are treated as money, as cash, in the ordinary course and transaction of business, by the general consent of mankind; which gives them the credit and currency of money, to all intents and purposes. They are as much money, as guineas themselves are; or any other current coin, that is used in common payments, as money or cash.61'

For the ensuing judicial hesitation and its resolution see Geva (1987, p. 151). Certainty was created by the Bank of England Act, 1833 — section 6 made these notes legal tender.

Eventually, all issuing authorities of the world made their notes into current and lawful money. That means the same paper note that used to be primarily evidence of personal indebtedness under \textit{ius in personam} and whose transfer did not necessarily transfer the corresponding rights and expectations, was made by the sovereign authority into a thing under \textit{ius in rem} as an embodiment of the associated transferable expectations.62 The next logical step was to reduce the backing reserve to all coins and notes to zero.

\begin{footnotes}
\item[61] In \textit{Miller v. Race} (1758), 1 Burr 452 at 457, 97 E.R. 398 at 401.
\item[62] Presently, the strict sense bank notes — that is to say notes that are issued by banks without sovereign authority or backing — are not in the
\end{footnotes}
Fiat money.

The current monies of the world have until very recently been what governments decree as money — the fiat money. It is issued to the public as cash in the form of printed paper and metallic coins. The quantity issued is arbitrary unless limited by law, that is binding on the executive and legislative branches of the government. The number of money units that is printed on a piece of paper is generally very much more than the cost of the paper, ink and printing together. Also the number of (fractional) money units that is pressed onto a piece of metal is quite unrelated to the cost of the metal and minting together — during inflationary periods it may happen that the cost of the metal alone in a coin exceeds the purchasing power of that coin.

63 Fiduciary money was either convertible into or was backed by some assets of the issuing authority or bank. Fiat money is neither convertible into nor backed by any assets.

64 In reality, even constitutions are not absolutely predictably binding on a sovereign power.

65 On the 28th of March, 2002, the South African Broadcasting Corporation’s TV News announced the withdrawal of the 1- and 2-cent coins from circulation by the South African authorities, with the effect from the 1st of May 2002. It was also announced that, at this time, it cost 9 cents and 11 cents to manufacture the 1- and 2-cent coins respectively.

Much later, the released version of this media statement was found by the present writer on the SARB website www.reservebank.co.za under ‘Media releases’ — and it differs significantly from the above news announcement. The text from the website is as follows:

1. It is hereby advised that the minting of South African 1 cent and 2 cent coins and their continual distribution for circulation by the South African Reserve Bank will cease on 31 March 2002. This is consistent with a decision which was taken by the Cabinet in July 2000.

2. All existing South African 1 cent and 2 cent coins will remain legal tender in the Republic of South Africa. Accordingly, all banks, persons and businesses will be and are obliged to continue to accept these coins as legal tender in the Republic of South Africa.

3. It costs approximately 9 cents to produce a 1 cent South African coin and approximately 11 cents to produce a 2 cent
4 Substitutable expectations.

So far, it was assumed for simplicity that money issued by the authority of the state was the only generally accepted liquid form of storing expectations for future transactions. This may have been approximately the case while money was embodied in the coins or the associated precious metal. This no longer is even approximately correct, unless one is prepared to include in the definition of money such contractually created expectations as bank balances and credits, shares in companies and other. It will be shown later that bank credit has been indeed accepted in South African law as money. But first the unavoidable natural relationship between whatever used to be tangible money by the sovereign authority and any other widely used form of storing expectations needs to be shown.

Even though the society may have earlier treated bank notes as money, the sovereign authorities of the respective societies did not generally accept the bank notes as money. Ultimately, the judiciary branch of the state authority has had to follow the legislative branch or its own traditions and not the subjects of this authority. The conflict is solved by accepting that the members of a society may do as they wish as long as they do not contradict the supreme power of the society in the form of the sovereign authority. In the present context, that means: as long as law does not forbid exchange of desirables against other desirables or expectations, the members of society can do so and treat the expectation as if it was money. Yet they can not necessarily take advantage of special legal dispositions (if existing) that are available only in respect of current and lawful money, legal tender, cours forcé, or whatever else the sovereign decides to regulate. Equally, when the positive law prescribes that money has to be used for some purpose, then

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South African coin. Hence the decision to discontinue the minting and continual distribution of these coins.

4. Evidently, many businesses operating in the Republic of South Africa have indicated a preference to round off transactions to the nearest 5 cents, in the public interest, whenever they are unable to give change in 1cent or 2 cent South African coins.'
nothing else but current and lawful money in the appropriate context will do.

Substitutes.

The legal treatment of money can be brought close to the economic facts by classifying everything that is used like money as *substitutes of money*. In the context of (contractual) payment obligations, the South African law has firmly adopted the economic concept of substitute in the form of payment *per aequipollens*. The concept of substitutable goods is familiar to economists and can be illustrated by the example of butter. Roughly by the middle of the twentieth century, food chemists and entrepreneurs had industrialised the hardening of plant oils by treating the oil with hydrogen. The result is modern margarine which is used in the same way as butter. Some people clearly prefer butter and some clearly prefer margarine. But there are many who change their buying preference as soon as there is a slight change of the relative prices between the two products. Thus butter and margarine are economic substitutes for each other. Yet there are differences, such as the one is of animal and the other is nowadays almost exclusively of plant origin, the one contains more cholesterol than the other and so on. Thus they cannot be made legally identical and for a long time the production and sale of margarine was indeed severely restricted by various municipal laws.

From this point of view the erstwhile banknotes were very close substitutes of money in exchange of desirables. Both carried expectations, were accepted by the general public and were denominated with respect to the same monetary unit. Legally however, the banknotes were during most of the time in most legal systems evidences of money-debt and not money itself in the presently accepted sense.

The really important natural property of all substitutes is the fact that they co-determine the exchange value of the substituted desirable in

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67 Margarine was developed by the French chemist H. Mège-Mouriés in the late 1860s and was patented in the United States in 1873 (Encyclopaedia Britannica, 1989). It was not (necessarily) based on vegetable fats and the use of hydrogen was not essential.

68 Notes issued by banks. In the modern usage and in the South African Reserve Bank Act 90 of 1989, 'banknotes' refer to official paper money issued by state authority.
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the market. Convertibility between substitutes is neither necessary for this property, nor an element in the definition of substitutability here.\textsuperscript{69} The positive law may prohibit the use of some substitutes, but it has been unsuccessful in banning all of them. Thus the amount of desirables, that a sum of current and lawful money can be exchanged for, is not determined by the total quantity of that money alone in a market, but by the sum\textsuperscript{70} of all offered (and accepted) substitutes — just as the price of butter would have been significantly higher had the substitute margarine not competed for the attention of the same buyers.

\textit{Money supply.}

Bank credit has been the economically most significant substitute for tangible money during at least the last century. Presently, in the order of ten to twenty times more bank credit is used to carry expectations in trade than the notes and coins that are issued by the authority of the modern developed states. Negotiable instruments (such as cheques) may for a limited duration, but do not in current practice significantly substitute money. Very large quantities of expectations are stored in pension and insurance funds,\textsuperscript{71} but these funds are generally sunk in long term investments and do not compete in the high turn-over (consumer) markets. Very large quantities of expectations are also stored in the equity markets which are separate from consumer markets. Even though equities are not generally traded directly for primary goods and services, they are indirect substitutes — at least as stores of future expectations. In any case, the equity market transactions must be accounted for in the macro-economic considerations because, for transactional reasons, they compete dynamically for the same money and credit supply as do the consumer markets.

Economists tend to classify bank credit as money. Due to the earlier sovereign and legal resistance, the expression \textit{money supply}\textsuperscript{72} has

\textsuperscript{69} Modern bank credit is a substitute for tangible money with only some of it being convertible at the same time.

\textsuperscript{70} No weighting is needed when the substitutes are denominated with respect to the same monetary unit and are as liquid as money. However, some (perhaps time dependent) weighting may be necessary in respect of less liquid financial assets (such as book credits), or assets that are traded in specialist markets (such as company shares).

\textsuperscript{71} See generally Fourie, Falkena and Kok (1999).

\textsuperscript{72} Woelfel (1994), p. 752; Makinen (1977), p. 293. \textit{Money fund}, or \textit{fund} has been used in similar sense.
come to be used collectively for money and its close substitutes in circulation in a state. The dominant component of this money supply is the bank credit which differs significantly from the historical forms of loan or usufruct, has practically nothing to do with ‘credit’ in sales transaction and is created as follows.

**Creation of bank credit.**

Creation of bank credit is a bilateral contractual act, whereby the bank as a creditor makes available an amount of monetary units on the personal account of its client. This amount may be fixed up front, or may be determined by the client within previously agreed limits and other conditions as and when the client decides. The latter flexibility is typical of overdraft, revolving credit, credit or debit card accounts and flexible mortgage bond facilities. The banks too may have contractual rights to change the credit amount in either way. The client has a contractual right to withdraw money from her bank account or she can transfer any part of this credit to other persons, often without any involvement of money. In this respect the bank is the debtor of its client/creditor, who may transfer the credit rights to third parties. Note that the bank does not become a debtor only when the client pays or transfers current and legal money to the bank — the bank becomes a (contractual) debtor for some amounts of money even when the total debt of the client to the bank is greater.

On the other hand, though, it is the bank’s client who is the debtor for the repayment of the corresponding credit amount to the bank — or the corresponding sum of money — and the interest. This duty cannot be transferred without the agreement of the bank. Often, the banks require some security for the debt from its client — either in the form of real security or in the form of a guarantee by a suitable third party. Looking at all the acts that create the bank credit, we find that the

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73 The bank and client have to have had a preceding contractual relationship under which the client’s account was created. Therefore, before bank credit can be created at least two bilateral contractual acts are needed, but here we are concerned only with that contract which creates the credit itself.

74 Under a different general contract that governs the bank-customer relations.

75 With or without advance notice, or after a fixed deadline.

76 Whatever that may mean in a particular legal system at a particular time.
bank has an additional liability and an additional asset. Both are initially equal and both are measured in the units of some legal money. This is shown in Table 3-1. The clients always have to pay interest to the bank on its assets, but receive much less if anything from the bank on its liability. The difference covers bank's costs and profit.

<table>
<thead>
<tr>
<th>Table 3-1: Creation of bank credit.</th>
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<tbody>
<tr>
<td><strong>Asset of bank:</strong></td>
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<tr>
<td>Client's obligation to pay S monetary units to the bank in the future.</td>
</tr>
<tr>
<td><strong>Liability of bank:</strong></td>
</tr>
<tr>
<td>Credit of S monetary units written into client's account in the present.</td>
</tr>
</tbody>
</table>

Initially, the bank's book is in a complete balance — nothing has come into or left the bank, nor has the client transferred any amount of money to or from the bank. Yet both are debtors and both are creditors. It seems necessary, at this stage, to draw the readers attention to an apparently common misunderstanding that can be expressed in the form: 'funds lent by banks to borrowers originate primarily from savers' deposits'. This is not even close to the reality. It is shown below that, at any given time point in a modern economy, the banks have lent about ten to twenty times more funds to borrowers than the total amount of issued (tangible) money that is available for being deposited in banks and other deposit taking institutions.

As it is irrational and costly to have unutilised credit, the client withdraws (some of) her credit from the bank in the form of tangible money, or transfers her right to (any portion of) the credit amount in her account to a different account — possibly belonging to someone else and possibly in a different bank.

77 Geva (2001), p. 7. After correctly quoting from a famous economics text that banks provide the economy 'with the largest component of the money supply', Geva (who is not an economist but a Professor of Law) still concludes that 'the use of the deposited money through profitable lending compensates banks, and provides them with an incentive for deposit taking.' (Ibid, emphasis is added.)

Deposit taking is an expensive administrative burden on banks and its clients pay for this service either directly or indirectly. In modern legal environments, a monopolist's ability to cross-subsidise one business activity (such as deposit taking or cheque account administration) from another business activity (such as lending) is being progressively curtailed.

78 Briefly in this section and quantitatively, in relation to the quantity theory of money, in section IV 1.
Transfer of bank credit.

In the banking business, credit transfer between banks is settled by transferring ownership of the corresponding nominal amount of money between the involved banks. This is necessary in order to avoid a situation where all users of banking services have to have an account at all banks. A client $C_A$ of bank $A$ cannot transfer his right $R_A$ to money from bank $A$ to a client $C_B$ of another bank $B$, without $C_B$ becoming also a client of bank $A$ or either of them withdrawing the corresponding amount of tangible money from bank $A$. The reason is that, in law, $C_A$ can transfer his right $R_A$ to another person, but $C_A$ cannot transfer the duty of bank $A$ to another bank. To avoid back-and-forward transfers of large amounts of tangible money, or the necessity to have correspondence relationships (with inter-bank accounts), the banking industry has devised a settlement mechanism, whereby the duties to pay money to clients are transferred between themselves to exactly mirror the credit transfers between their respective clients — see Figure 3-1.

Payment is often initiated by transfer of $C_A$ right to $C_B$ and ends with banking settlement where bank $A$ duty towards $C_A$ and the same amount of bank $A$ right from 'Resbank', or another trusted third party, are transferred to bank $B$. However, the time-sequence of a valid payment procedure may be different. Here, merely a general understanding is sought about how bank credit functions as, or in place of tangible, money in a money payment obligation or procedure. A detailed description of the numerous payment mechanisms — which distinguish between credit and debit transfers — through banks and other account-holding institutions is clearly outside the scope of this research. It is also unnecessary, the interested reader is referred to the thoroughly useful and up-to-date comparative work of Geva (2001).

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78 In modern banking, usually, no physical delivery of money from one bank to another is involved. The money is kept by a trusted third party — such as a central bank — in the form of account entries and also tangible money. The ownership transfer (by attornment) is communicated to this third party. See Section 3 in Chapter II. Banks may transfer tangible money directly between themselves. This is expensive in crime-ridden states because of the necessity of utilising expensive motorised and armed security for the duration of the transit.

79 Which presupposes an account at the same bank.

80 Or directly between the banks.
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Figure 3-1: Creation (on the left) and transfer of client C_A's right to credit at bank A to client C_B of bank B. The thick arrows indicate the direction of an obligation towards the owner of the corresponding right. Dashed arrows indicate the remaining (longer term) debt of C_A to his bank.

There never seems to have arisen any contractual dispute about the validity of the transfer of payment duties between banks\(^81\), to which C_B as the new owner of the corresponding right could object — unless his tacit agreement can be found somewhere. This problem could arise, for example, when bank B becomes insolvent and its client looks to bank A for the amount of money to which C_A ceded his rights.\(^82\) By general commercial and banking custom, this problem can be avoided by not accepting the transfer of C_A right to C_B as 'money payment'. In fact, this transfer of right is very unusual without the involved banks explicit agreement — such as given by the issuing bank in case of an irrevocable (unconfirmed) documentary credit.\(^83\)

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\(^81\) Of course, the exact time-point of this transfer is more difficult to establish and has led to disputes. A further cause for disputes is the revocable and conditional nature of some of the steps in the transfer sequence.


Let us look a little closer at a payment procedure where the transfer of $C_A$ right to $C_B$ is the first stage in what is accepted as ‘money payment’ and this payment is completed (discharged) only after $C_B$ has unconditional\textsuperscript{84} use of the credit at his bank B. The last stage of such form of money payment consists of a sequence of exchanges, in the first of which $C_B$ delivers his right to payment from bank A to bank B for the latter’s obligation to pay the same amount of money to $C_B$ (less service fees\textsuperscript{85}) immediately or at demand. The transfer of the corresponding right to payment from bank B may be and usually is conditional on completion of the settlement between the banks B and A. Correspondingly, the entire payment of money between $C_A$ and $C_B$ is usually conditional on completion of this settlement between the banks.

In South Africa, credit transfer through banks in general and the settlement in particular is now governed by the National Payment System Act 78 of 1998, for the purposes of which ‘money’ is defined narrowly as ‘a banknote or coin issued by the Reserve Bank in terms of section 10 (1) (a) (iii) read with section 14 of the South African Reserve Bank Act’\textsuperscript{86}. Only the Reserve Bank, a bank, or a complying branch of a foreign institution may participate directly in this payment system.\textsuperscript{87} The payment intermediation is governed by subsections (2) to (4) of the rather technical section 7 of the National Payment System Act 78 of 1998:

‘(2) Subject to subsection (3), no person may as a regular feature of that person’s business accept money or payment instructions from any other person for purposes of making payment on behalf of that other person to a third person to whom that payment is due, unless the person so accepting money or payment instructions —
(a) is a system participant;

\textsuperscript{84} That is to say, independent of $C_A$ and of his bank A. Tenax SS Co Ltd v The Brimnes (Owners) [1973] 1 All ER 769, at 782. See also A/S Awilco v Fulvia ApA di Navigazione; The Chikuma [1981] 1 All ER 652 HL for a thorough interpretation of ‘unconditional’.

\textsuperscript{85} Or even less in case of discounting of rights to deferred payments. However, discounting is an entirely different transaction, independent and outside the original payment transaction. Discounting is analogous to forfaiting (per Langley J in Banco Santander SA v Bayfem Ltd and Others [1999] 2 All ER (Comm) 18 (QB) at 28j–29b and per Stegmann in Vereins- und Westbank AG v Veren Investments and others 2000 (4) SA 238 para [77] at 270D–271A), whereby the amount owed by bank A is not changed. See also Hugo (2002).

\textsuperscript{86} Sections 1 and 5(1) of the National Payment System Act 78 of 1998.

\textsuperscript{87} Section 3(3) of the National Payment System Act 78 of 1998 read together with the definition of ‘system participant’ in s. 1.
(b) is a person introduced by a system participant in accordance with criteria determined in terms of section 4 (2) (d);

(c) is the postal company as defined in section 1 of the Post Office Act, 1958 (Act 44 of 1958), or the Post office Savings Bank established by section 52 of that Act; or

(d) is a person or one of a category of persons exempted by the Minister of Finance in terms of subsection (4).

(3) Subsection (2) may not be construed as prohibiting the acceptance of money or payment instructions —

(a) by any person acting as the duly appointed agent of the person to whom the payment is due;

(b) by a holding company from its subsidiary, or by a subsidiary from its holding company, or by one subsidiary from another subsidiary of the same holding company; or

(c) for purposes of the effecting of a money lending transaction by an agent or a mandatory as contemplated in paragraph (ff) or (gg), respectively, of the definition of "the business of a bank" in section 1 of the Banks Act.

(4) The Minister of Finance may, after consultation with the Reserve Bank and the payment system management body, by notice in the Gazette and subject to such conditions as the Minister may determine, exempt any person or category of persons from the provisions of subsection (2) if the Minister is satisfied that such exemption will be in the public interest and will not cause undue risk to the payment system.‘

The discharge and finality of settlements is governed by subsections (2) to (4) and (7) of section 5 of the National Payment System Act 78 of 1998:

‘(2) The discharge of settlement obligations between system participants is effected in money or by means of entries passed through the settlement system.

(3) A settlement that has been effected in money or by means of an entry to the credit of the account maintained by the beneficiary system participant with the Reserve Bank for settlement purposes, is a final and irrevocable settlement.

(4) No settlement in terms of a settlement instruction which has been finally and irrevocably effected in terms of subsection (3) may be reversed or set aside.

...

(7) The Reserve Bank may, in consultation with the payment system management body, prescribe by notice in the Gazette such conditions, rules or procedures as it considers necessary regarding the issue of settlement instructions and discharge of settlement obligations.‘

Note that the settlement, and hence the entire payment transaction between $C_A$ and $C_B$, no longer presupposes the existence of tangible money. The term 'money' is not defined in the Banks Act 94 of
1990, but it is clearly used in the wide sense — including tangible money and (implicitly) credit — when defining that ‘deposit’ ‘means an amount of money’ and that ‘the business of a bank’ includes prominently ‘utilization of money ... accepted by way of deposit’ ‘from the general public as a regular feature’ of its business.88

In either case — when the client physically withdraws tangible money or the ownership of the money in the client’s account is transferred to another bank — the bank had to own initially the necessary amount of tangible money, or have equivalent amount of credit with the Reserve Bank, and remains only with the asset in the form of an expectation of future payment. This would be a precarious illiquid situation and the bank may even be forced into insolvency because the issued credit normally exceeds very significantly the amount of tangible money in the bank’s possession, credit with other banks, or credit with the Reserve Bank.89

In reality, sufficiently large banks have economically active clients that not only transfer credit out of their accounts but also receive transfers into their accounts from other economically active persons or from their other banks. In the average, the flows of credit and tangible money, into and out of a bank, tend to balance out every day much more evenly than with respect to an individual account. Hence the regular settlement and other transfers of money involve an almost negligible amount of tangible money in relation to the transfer of credit amounts that are denominated with the same money unit. Hence, neither the public nor the banks need to keep large sums of tangible money. Indeed, in modern economies, the amount of bank credit exceeds the amount of issued money by a factor of at least ten.

Two aspects of performance per aequipollens.

The continued existence of the relatively huge amounts of bank credit in modern economies is obviously related to the willingness of banks to create this credit. However, this is not enough — the businesses

88 Section 1 of the Banks Act 94 of 1990.

89 Note the difference between liquidity, which relates to possession of liquid assets, and solvency, which relates to the difference between assets and liabilities. Insufficient liquidity may lead to a bank’s failure because most of its assets are long-term and are difficult to sell when a shorter term need arises. A modern trick is securitisation, but this goes beyond the present study.
and wage earners have to accept credit as an intangible carrier of expectations instead of the tangible banknotes and coins in exchange for goods and services. The South African law has contributed to this development by initially embracing the principle of payment *per aequipollens* and more lately by accepting bank 'credit' as money — calling the spade a spade. This legal development is traced briefly as follows.

In relation to payment (performance) in general, there is old authority in support for payment of one thing in place of another without novation of the underlying agreement\(^{90}\), but this required consent of the creditor. Two questions arise immediately: can the consent to payment *per aequipollens* be found in the original agreement and, especially in case of goods specified by quantity (such as money), what are the limiting characteristics of a genus? Clearly, in the modern law, the common intention of the parties dominates\(^{91}\) and thus 'the interpretation of the contract is decisive'\(^{92}\). The details of how a court should find answers to the above questions have been set out comprehensively by Claassen J in *Van Diggelen v De Bruin* 1964 1 SA 188 (SWA):

>'In coming to a decision in this case as to whether there must be performance *"in forma specifica"* or whether performance *"per aequipollens"* will suffice, it seems to me that I should proceed along the following lines.

(1) The Court must gather from the surrounding circumstances what the parties contemplated. It must take into consideration everything which can give a clue to the intention of the parties. It must seek to find out what the parties would have wished if their minds had been specially directed to the question whether the condition was to be fulfilled *"in forma specifica"* or by an equivalent act. See *Wessels* para. 1335. *Hanomag S.A. (Pty.) Ltd. v. Otto.*, 1940 C.P.D. 437 at p. 443; *Robertson Municipality v. Jansen* 1944 C.P.D. 526.

(2) If however the circumstances afford no clue then there is a presumption that the condition must be performed *"in forma specifica"* (*Wessels* para. 1337. *Pothier Oblig.* 206). This presumption is rebuttable by the promisor, but it cannot be rebutted where it is clear from the terms of the contract and the surrounding circumstances that performance *"in forma specifica"* was stipulated in the contract. *Wessels* paras. 2638-9.

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90 Voet (1780/1907), pp. 144–145 read together with pp. 130–131.

91 When law does not interfere.

(3) The Court will in cases of doubt be more likely to find in favour of performance “per aequipollens” if the manner of performing is not material or also where performance “in forma specifica” is impossible through no serious fault on the part of the promisor. Impossibility should probably be interpreted in the sense it was interpreted in Peters Flamman & Co. v. Kokstad Municipality, 1919 A.D. 427.

It is clearly not sufficient for the promisor to tender performance of an equivalent act merely because performance “in forma specifica” is difficult, inconvenient or expensive. (Yodaiken v Angehrn & Piel, 1914 T.P.D. 260.) The promisor undertakes such a risk (Wessels para. 2668).

(4) The act of performance tendered “per aequipollens” where such is permissible must in the first instance be an equivalent act to that mentioned in the contract or be of such a nature that it can make no material difference to the promisee. Such seems to be the position if any immaterial difference or inequality can be put right by compensating the promisee in damages.

(5) The Court's paramount concern is always, within the frame-work of the law, to do justice between man and man. It will be guided by the terms and circumstances of the contract under consideration. Thus in cases where the promisor has discharged the onus mentioned in (2) above, there may be circumstances falling short of impossibility, and even where there may have been some fault on the part of the promisor, and where the Court may nevertheless come to the conclusion that the promisor's performance or tendered performance amounted to substantial performance (Cheshire and Fifoot p. 352, 1st Ed.), or is of such a nature that the promisee can be compensated in damages for any shortfall. (Strachan v. Prinsloo, 1925 T.P.D. 709 at p. 717).

It seems to me the process of reasoning by which the Court is required to arrive at the true intention of the parties or at what was within the contemplation of the parties is the same process as that by which the Court has to determine whether an implied term is to be read into a contract. Dealing with the question of the implied terms STRATFORD J.A., said in Barnabas Plein & Co. v. Sol Jacobson & Son, 1928 A.D. 25 at p. 31:

“The true view appears to me to be that you have to get at the intention of the parties in regard to the matter which they must have had in mind, but which they have not expressed”.$^{94}$

The rule (1) of Claassen J above has been criticised by Christie (2001) on the ground of incompatibility with ‘the general rule applicable to the interpretation of contracts’$^{95}$ and by Van den Heever JA in Frumer v Maitland 1954 3 SA 840 (A) as follows:

‘For the court to think what equivalent fulfilment of a condition would probably have satisfied the parties and

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$^{94}$ At p. 192H–193.

$^{95}$ P. 477.
that consequently they probably intended the fulfilment \textit{per aequipollens} of such a putative condition, is a dangerous proceeding which may well result in judicial discretion overriding contractual autonomy.\footnote{In a dissenting judgment at 849G–H.}

Subject to this criticism, the rules of Claasen J have been applied in numerous cases before and after \textit{Van Diggelen v De Bruin} — see Christie (2001), pp. 477–478. In relation to money\footnote{Not only in a transaction of payment.}, some equivalence is statutory and this will be elaborated in the next section in relation to legal tender. It is helpful to note that there are two distinct aspects in a performance \textit{per aequipollens} of a duty to pay money\footnote{The same applies in respect of a duty to transfer any property, not just money.}: one relates to existence and acceptability of equivalent corporeal and incorporeal carriers of expectations and the other relates to equivalent modes of delivery of these expectations. In this work, we are (primarily) interested in the equivalent forms of money.

The special position of 'money' was very apparent in Roman law. For example, a sale\footnote{The most prominent and economically significant example of exchange involving expectations.} was not a sale unless money was delivered or promised to the seller. Later, in order to enforce the nominalistic monetary system and maintain the ruler's ability to buy\footnote{Buying is the correlative to selling.} desirables for money that was created by him more or less 'out of thin air', the competing\footnote{But otherwise economically equivalent.} carriers of expectations had to be ruthlessly banished from as many economic transactions as possible. This entails two compulsions: one that made it compulsory for the payer to tender only money issued by the authority of the sovereign and the other that made it compulsory for the payee to accept this tender in payment of a money obligation. This oppressive atmosphere was fundamentally incompatible with performance of money payment by any other equivalent means.

\textit{Cheques.}

Some of these equivalent means, on closer analysis, did not necessarily threaten the ruler's ability to buy desirables for his fiduciary or fiat money. One of these was payment by cheque that led to transfer of
ownership in legal money\textsuperscript{102} by attornment. Utilisation of cheques to transmit payment related instructions to involved third parties does not change the fact that the ultimate purpose of cheques is to transfer ownership of money from the payer/drawer to the payee. The sum of money written on a cheque is not incorporated in the cheque nor is the cheque even equivalent to a bank note that is money by virtue of embodying the denominated amount of expectations. A cheque is primarily an element in the process of delivery of money.\textsuperscript{103} It is true that cheques are negotiable instruments and in that role carry expectations and are capable of being traded for goods, services and money before presentment to banks — but so are most other rights. However, this practice is not general, because of the danger of a cheque being stopped by the drawer, or dishonoured by the drawee bank, or becoming stale.

Nay, the use of cheques does not in itself change significantly the amount of expectations in circulation because, normally, the corresponding amount of money (credit) has to be kept in a bank account out of circulation in order to meet the payment obligation when a cheque is eventually presented to the drawee bank. Baron Parke had a crisp view of the cheque 150 years ago when he explained in Ramchurn Mullick v Luchmeechund Radakissen (1854) 9 Moo PC 48:

'A cheque ... is not intended for circulation, it is given for immediate payment; it is not entitled to days of grace; and though it is, strictly speaking, an order upon a debtor by a creditor to pay to a third person the whole or part of a debt, yet, in the ordinary understanding of persons, it is not so considered. It is more like an appropriation of what is treated as ready money in the hands of the banker, and in giving the order to appropriate to a creditor, the person giving the cheque must be considered as the person primarily liable to pay, ...'\textsuperscript{104}

Burger (1957), without citing the above or other authority, gave a more detailed explanation:

\textsuperscript{102} Prior to accepting bank credit into the definition of money, one could say that cheques led to transfer of ownership of the bank credit related right to payment, when no tangible money was withdrawn by the holder directly from the drawee bank.

\textsuperscript{103} This has historical roots in the goldsmiths' notes of the late seventeenth to late eighteenth century England. Geva (1987, p. 146) explains that the 'goldsmiths' notes and cheques were payment mechanisms, which facilitated the transmission of funds from a debtor to his creditor.' Although the term 'funds' seems clear in the limited context of the business of these goldsmiths, Geva does not define its modern meaning.

\textsuperscript{104} At 69–70. Reproduced from Gering (1997), p. 86.
'A cheque is an intermediate step in the fulfilment of the buyer's obligation to pay money to the seller; the essence of a cheque, it is submitted, is that it is a promise to the seller that he will receive the money due to him if and when he presents the cheque to the bank on which it is drawn. A cheque is thus clearly not a form of substituted performance (in solutum datio) since it is merely a step towards the fulfilment of the original obligation and not a substitute for it. By accepting the cheque the seller enters into a collateral agreement with the buyer to the effect that the seller will first pursue this method to obtain the money and will not claim cash unless and until the cheque should be dishonoured. The original terms of the sale regarding cash on delivery are thus inevitably altered to an appreciable extent — the obligation of the buyer to pay cash on delivery is changed to one to pay cash through the bank when cheque is presented. It is submitted, therefore, that logically payment only takes place if and when the cheque is met by the bank. Since some time must necessarily elapse before a cheque can be presented for payment, it follows that whenever a seller accepts a cheque he strictly speaking gives credit to the buyer, since he has agreed to postpone the time of payment for a period.\textsuperscript{105}

This is a very good explanation. However, firstly, use of a cheque may indeed be a ‘substituted performance’ — for example, when the agreed delivery step in the money payment obligation did not include the use of a cheque and when the manner\textsuperscript{106} of payment is important to the payee. Nevertheless, this substitution may be acceptable as a performance of the delivery \textit{per aequipollens} of the same amount of the originally agreed money, which is not changed or substituted. Secondly, it is submitted, a performance requiring the delivery of something tangible, or doing something in general, always takes some time — even if it is just for putting the hand in the pocket to take out a few coins and then handing them over to the seller. Strictly speaking, neither the duration of, nor the mode of money delivery in, a payment transaction can be the basis for deciding if something as artificial as credit in a sale was given or not. It does not seem correct that in a ‘cash sale’ money has to have been delivered to the seller before\textsuperscript{107} the delivery of the goods to the buyer. Hence, as long as the money payment transaction has begun\textsuperscript{108} sufficiently close in time to the delivery of goods, any delay in the ending of the money payment transaction is \textit{prima facie} consistent

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\textsuperscript{105} At 465.
\textsuperscript{106} Voet (1780/1907), p. 139.
\textsuperscript{107} As a condition precedent.
\textsuperscript{108} Handing over a cheque begins the money payment transaction.
with cash sale. The mode of delivery must be reasonable and can be specified by the parties explicitly or tacitly.

Professor Scholtens (1956) does not analyse the transactional technicalities of cheques, but seems to express the same opinion about their role in the delivery of cash as is submitted in the present work:

‘Cheques serve the purpose of facilitating the making of payment. ... Generally speaking, the acceptance of a post-dated cheque will amount to the granting of a delay of payment, but if a cheque is not post-dated there seems to be no valid reason for drawing a distinction between the case where in the ordinary course of business the cashing of the cheque might involve only a short period and the case where a longer period would be required.’109

Thus, with respect, it does not seem necessary to say that if the creditor does not waive his right to demand cash, the delivery of a cheque to the creditor is not valid payment.110 Of course it cannot be, because it is 'an order upon a debtor by a creditor to pay to a third person' capable of leading to a perfectly valid transfer of money in the form of cash or other. Insufficient differentiation between the manner of the delivery of the res and the res so delivered, has produced court pronouncements in which cheques and money are competing media. In Schneider and London v Chapman 1917 TPD 497, De Villiers JP said:

‘[G]enerally speaking ... tendering of a cheque is not payment. But having regard to the course of commercial dealings in the modern world, ... the Court will not require very strong evidence to show that the parties in the particular transaction contemplated that payment might be made by cheque.’111

In Esterhuyse v Selection Cartage (Pty) Ltd 1965 1 SA 360 (W), Trollip J said:

'in contract, where the debtor is obliged to pay money to the creditor, the medium of payment must be that which

109 At 366. See also Scholtens (1957).
111 At 500. The confusion between delivery and money in this citation becomes clearer, when one reads at 501 how De Villiers JP approvingly refers to the American case Gunby v. Ingram (36 Law Rep. Annot., N.S. 232), in which Dunbar J, at 234 speaks of the creditor 'waiving' the character of the money which is tendered by raising no objection to the payment by cheque.

In a much more recent English case, A/S Awilco v Fulvia ApA di Navigazione; The Chikuma [1981] 1 All ER 652 HL, a quotation at 656g demonstrates the same mix-up between money and its transfer by Goff J in the court a quo even more clearly when he stated that 'the money took the form of a telex transfer'?
the contract expressly or impliedly specifies, as determined by its terms and such evidence of custom, usage and the surrounding circumstances as is admissible to aid in interpretation. In this regard, in an ordinary commercial contract, in the absence of anything signifying the contrary, only some slight indication in the contract or evidence would generally suffice for inferring or implying that payment of the creditor can be effected by cheque, because that is now a widely used and recognised medium of payment in such transactions. In the absence, however, of such contractual definition of the medium, the payment must be made in legal tender. In that case, a tender of payment by cheque, if objected to by the creditor, is not valid.\(^{112}\)

In *Eriksen Motors (Welkom) Ltd v Protea Motors, Warrenton*, 1973 3 SA 685 (A), Holmes JA said *obiter*:

'In general, payment by cheque is *prima facie* regarded as immediate payment subject to a condition. The condition is that the cheque be honoured on presentation. When the cheque is so honoured, the date of payment of the debt is the date of the giving of the cheque. Conversely if the cheque is dishonoured there has been no payment.'\(^{113}\)

This is a difficult dictum. In a nutshell, the money payment duty means a duty to transfer ownership of money, which in South African law requires consensual delivery of what incorporates the agreed sum of money and concurring intentions to transfer its ownership from the payer to the payee. While there seems to be no problem in having a conditional delivery, the law does not seem to have a notion of 'conditional ownership of money'.\(^{114}\) Who has the *dominium* while the

\(^{112}\) At 361D–F. The legal use of 'legal tender' to denote certain coins and banknotes is problematic, because this tangible money may but need not be the object of any tender of performance — legal or otherwise. Offering a cheque is indeed part of a tender which may result in the transfer of legal tender (the medium) to the creditor, but it is not the monetary medium itself.

\(^{113}\) At 693G.

\(^{114}\) For example, 'personal servitude' is not even close to what Holmes JA seems to describe above. An interesting summary of the development from 'conditional payment' of notes towards their 'absolute payment' in the early English law can be found in Geva (1987, pp. 148-151). However, this brief analysis does not relate at all to the difficult question about the ownership of money and, thus, does not help in the South African law.

It seems that, in English law, the conditional payment does not pass any ownership in money — conditional or otherwise. On the contrary, the English legal expression 'conditional payment' actually seems to refer to a *conditional suspension* of the payment obligation until the obligatory amount of money has been transferred (delivered) to the creditor —
payee has only conditional ownership? Can conditional owner of a thing pass full or conditional ownership to a *bona fide* third party? If the ownership of money has not passed before the cheque is ‘honoured on presentation’ or whenever thereafter, then the most important part of the payment duty cannot have been discharged at the time of giving the cheque — conditionally or otherwise. If the ownership does pass at this time, then a subsequent violation of this condition cannot undo the passing of ownership — we have an abstract system of ownership transfer!

**Deemed time of payment.**

Apart from the theoretical difficulties with this *obiter dictum* of Holmes JA, two immediate practical consequences would seem to flow from it: (1) when the money payment duty is finally discharged, then its time-point is back dated to (deemed\(^{115}\) to be) the time of giving the cheque; and (2) between the acceptance of the cheque and either its honouring or dishonouring, the parties rights that are consequential on the lack of payment\(^ {116}\) are frozen. It is submitted that a third practical consequence must be added: (3) consequences (1) and (2) do not follow merely from the fact that a cheque was used, but rather from all relevant contractual circumstances and are rebuttable.

Ironically, this *dictum* was of no relevance to the finding in the *Eriksen Motors* case itself which revolutionised the law of sale\(^ {117}\) in South Africa. The transfer of ownership of an allegedly sold car was based by Holmes JA on the consenting intention of the parties and not on payment or any other form of satisfying\(^ {118}\) the seller. Consequently it was not necessary to make a finding whether the alleged sale was for cash or for

without similarly suspending or postponing the creditor’s duties towards the debtor, such as delivery of goods ‘sold’.

\(^{115}\) Kleyn and Boraine (1992), p. 248, n. 25.

\(^{116}\) Such as a forfeiture clauses in a lease agreement, which could be abused by unconscionable creditors, if the acceptance of a cheque did not have some restraining legal consequences. (Christie (2001), p. 482.) Also the seller as the owner cannot vindicate the *res* from the buyer or any other person. *Contra*, Kleyn and Boraine (1992), p. 248.

\(^{117}\) And harmonised it with the general principles of the transfer of ownership in the law of property.

\(^{118}\) According to the ‘admonition of the Emperor [Justinian] “Things sold and delivered are only acquired by the purchaser when he has paid the price to the vendor or in some other way satisfied him.”’ (Reference to
credit\textsuperscript{119} and no ratio was given for considering the transaction to have been a sale in the statement: ‘I come to the conclusion that the probabilities are strongly against an intention by Eriksen’s to retain the ownership of the vehicle which they sold to Turner.’\textsuperscript{120}

\textit{Bank credit is equivalent to money in law.}

The above difficulties of the use of cheques in the sale transactions have apparently kept the attention of courts and writers away from the real revolution that has occurred as a natural consequence of the wide scale use of cheques\textsuperscript{121} in the delivery stage of money payment. In modern use of cheques, the final ‘cashing of the cheque’ involves tangible money only exceptionally. The general rule is that all commercial parties consider the money to have transferred when their overdraft has been unconditionally reduced by the corresponding amount of money units, or when they have unconditional\textsuperscript{122} access to whatever remains of the corresponding amount after their overdraft (if any) on their bank account has been settled. This amounts to settlement of the money payment obligation if, in addition to the transfer of credit, this transfer is considered by both parties to have been according to the underlying obligation to pay.

That means, the society has accepted both: (1) the delivery of money with the help of cheques as equivalent to passing money\textsuperscript{123} from hand to hand; and (2) bank credit as an equivalent to tangible money\textsuperscript{124}. Either of the two individually and both together are accepted in a performance \textit{per aequipollens} of the historical payment obligations. It would have been much simpler to accept bank credit as money, which would have implied the use of cheques or other forms of instructing bankers to allocate or transfer credit which cannot be given from hand to hand. But this was not possible in South Africa until 1989 because the

\textsuperscript{119} Neither was established.

\textsuperscript{120} At 696B.

\textsuperscript{121} Or giro instructions in most of continental Europe, as well as other written or oral credit transfer instructions everywhere.

\textsuperscript{122} Within the limits of the bank client contractual relationship.

\textsuperscript{123} In whatever agreed or legally enforced form.
Mint and Coinage Act 78 of 1964 very seriously impeded the use of bank credit as money. Section 14 of the Mint and Coinage Act of 1964, of which the Afrikaans version was signed, stated:

‘Every contract, sale, payment, bill, note, instrument, and security for money, and every transaction, dealing, matter, and thing whatever relating to money, or involving the payment of or the liability to pay any money, which is made, executed, or entered into, done or had, in the Republic, shall be made, executed, entered into, done and had according to the coins which are current and are a legal tender in pursuance of this Act, and not otherwise, unless the same be made, executed, entered into, done or had according to the currency of some foreign State.’

Prima facie, it was safe to use only the coins which were current and legal tender. It is difficult to find out now what ‘according to the coins which are current and are a legal tender’ meant exactly — it is no longer important except for historical reasons. Christie (1991) in the second edition of 1991 understood it to mean that ‘[t]he Mint and Coinage Act 78 s 14 require[d] all contracts and transactions relating to money to be expressed in legal tender under the Act or in foreign currency’ and he remained vague in relation to the actual payment of money. Use of paper money was governed by a different Act, to which reference was made in subsection (3) of section 12 of the Mint and Coinage Act of 1964:

‘Nothing in this Act shall be construed as preventing any paper currency which under the South African Reserve Bank Act, 1944 (Act No. 29 of 1944), is legal tender, from being a legal tender.’

All other forms of expectations — such as bank credit — seemed to have been strictly excluded from anything that could be done with money that was legislated to be ‘legal tender’. Note that the State did not expect the society in general, or courts in particular, to deduce any compulsion or prohibition from the words ‘legal tender’ — those consequences were spelled out in great detail in section 14 of the Act. It is noteworthy, that the courts did not volunteer to act as the police to find any fault with the widespread use of the bank credit as money. The

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124 Independently of whether it is transmitted by verbal instruction to a banker, by a giro instruction, or by an instruction incorporated in a cheque and passed on by the payee himself.

125 In the signed Afrikaans version ‘ooreenkomstig die munte wat gangbare munte en wettige betaalmiddels ... is’.

126 First sentence of the last paragraph on p. 493. This sentence, for obvious reasons, no longer appears in the 4th edition of 2001.
issue was not raised, either on purpose or because of the general confusion and debates among economists and bankers. The courts have over the years accepted tacitly to treat bank credit as money and not merely as equivalent to money.

Most of the uncertainty and legal tension was removed when the Mint and Coinage Act 78 of 1964 was repealed by the South African Reserve Bank Amendment Act 49 of 1989, which in turn has been repealed by the South African Reserve Bank Act 90 of 1989. There is nothing even remotely similar to section 14 of the Mint and Coinage Act of 1964 in the South African Reserve Bank Act of 1989, or anywhere else in the current statutes.

It follows, that the courts no longer need to treat bank credit in payment transactions as performance *per aequipollens*. It is submitted that there is no longer anything in the way of accepting bank credit as a carrier of expectations and as a form of money along other forms, such as banknotes and gold coins.\(^{127}\)

**Bank credit is money.**

This development is illustrated in England by *The Brimnes* case — *Tenax SS Co Ltd v The Brimnes (Owners)* [1973] 1 All ER 769 and [1974] 3 All ER 88. Brandon J, in the court a quo, effectively accepted bank credit as money (cash) in the statement:

'I consider first the meaning of payment in cash ... it seems to me that they cannot mean only payment in dollar bills or other legal tender of the USA. They must ... have a wider meaning, comprehending any commercially recognised method of transferring funds, the result of which is to give the transferee the unconditional right to the immediate use of the funds transferred.'\(^{128}\)

Later, some issue arose about the 'power of money to breed interest'\(^{129}\), and about the banking fee charged for withdrawing any of the

\(^{127}\) See further below about various forms of the so called 'legal tender.'

\(^{128}\) *The Brimnes* [1973] 1 All ER 769 at 782g. If one wants to distinguish this case, then it is of interest to note that in the *Brimnes* the contractual Clause 5 demanded '[p]ayment ... in cash ... for the credit of the account for [the shipowners]...' at their bank MGT (at 780h). This is not the same as a duty to pay cash directly to the shipowners. However, it is submitted, this distinction has lost its importance since the *Brimnes* was decided. Arguably, a distinction between commercial and non-commercial payments has remained potentially significant.

transferred funds, the first of which was lacking and the second was present in *The Chikuma* case, where the transferred funds to an Italian bank were not accepted as 'equivalent to cash, or as good as cash.' The declaration of these burdens as 'trifling', by Lord Denning MR, was rejected by the House of Lords. Lord Bridge of Harwich apparently found support for this rejection in the affirming reformulation of the above definition of Brandon J by Megaw LJ in the Court of Appeal:

> Whatever mode or process is used, "payment" is not achieved until the process has reached the stage that the creditor has received cash, or has a credit available on which, in the normal course of business or banking practice, he can draw, if he wishes, in the form of cash.

With respect, this statement is fundamentally different from that of Brandon J in the court a quo. Megaw LJ and Lord Bridge of Harwich ignore the modern reality of bank credit exceeding the amount of cash in the form of coins and notes by a factor of at least ten. At any given time, less than ten per cent of the funds can be withdrawn from the banks in the form of notes and coins. Which 90% of the funds are not 'as good as cash' then? Does the answer depend on who comes first to the bank? Clearly, it is not the convertibility of bank credit into tangible money that is important, but the acceptance of the bank credit by the society and law as carriers of transferable expectations and therefore as a substitute for, nay equivalent to, the tangible coins and notes.

In *Standard Bank of SA v Oneanate Investments (in liquidation)* 1998 (1) SA 811 (SCA), Zulman, JA at 817D, spoke of money payments by way of credit and debit entries in a clients banking account. It is also clear from the circumstances, that the 'call upon the purchasers to make payment in cash' did not mean the opposite of bank credit transfer but the opposite of a private 'credit note for R250 000'. The reported

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130 Ibid, at 657e.
131 Ibid, at 658a.
132 Ibid, at 657e–h.
133 *The Brimnes* [1974] 3 All ER 88 at 110.
134 Unless the issuing authority quickly prints as many banknotes as there is demand for it. This is apparently what the US Federal Reserve Bank has been prepared to do in the last decade or longer under its current Chairman Alan Greenspan. No official declaration to that effect seems to have been issued — some aspects of monetary policy are like state secrets in most states.
135 At 818H.
circumstances\textsuperscript{136} indicate that the parties (and the court) accepted transfers of credit between banking accounts as the specified ‘payment in cash’. One of the clearest explicit equations of money to the ownership of credit in a bank account was made in \textit{De Freitas and another v Society of Advocates of Natal and another} 2001 (3) SA 750 (SCA) at 764H–I, where Cameron JA explained the legal nature of an advocate’s business banking account, into which various monies and funds were transferred. He concluded, as \textit{ratio decidendi}, that:

\begin{quote}
\[ \text{‘[I]n law when [that money] was paid into his account it became his.’} \]
\end{quote}

Since it would be outrageous to presume that the learned Judge was not aware of the well known legal position whereby (tangible) money deposited in a bank becomes the property of the bank and cannot simultaneously be in the client’s ownership,\textsuperscript{137} his statement can only mean that in our law money includes tangible notes and coins as well as the client’s right to the funds\textsuperscript{138} in his account with his bank. An appropriate short-hand expression for the latter seems to be bank credit which must be differentiated from credit in general. Although personal credit relationships represent expectations, they do not lend themselves to easy circulation and are not accepted as a common monetary medium.

\textit{The total amount of money in a state.}

The bank clients do not seem to mind having practically unlimited credit — as long as the interest rate\textsuperscript{139} is sufficiently low. The amount of credit is limited by the prudential or legislated requirements of bank reserves, the composition of which is changed from time to time and from country to country. The reserves were originally dominated by and still have to include some corporeal money in the ownership of the bank — some of it in its own possession and the rest in the reserve/central bank.

\begin{footnotesize}
\begin{itemize}
\item At 818H–819F.
\item This is trite and can be traced back to the \textit{quasi ususfructus} in Roman law. Cameron JA actually referred to the leading case \textit{Ex parte Estate Kelly} 1942 OPD 265 and other more recent authority. A leading English case is \textit{Foley v. Hill and Others} (1848) 2 HLC 28; 9 ER 1002 (HL).
\item Either in the form of a credit balance, or under an agreed overdraft limit.
\item And any other associated disadvantages, such as bank charges, value added tax and so on.
\end{itemize}
\end{footnotesize}
In the 1988 *Basel Capital Accord*\(^{140}\) the tangible money reserves were made into a component in a broader definition of capital adequacy for credit creation by internationally active banks. The two main components were paid-up share capital (common stock) and disclosed reserves to which could be added the undisclosed reserves, asset revaluation reserves, general provisions, hybrid capital instruments, and subordinated debt if they were accepted by the legally responsible banking supervisor. In the proposed *New Basel Capital Accord*\(^{141}\) of 2001, the bank's ability to create credit is curtailed by a very much more flexible set of measures, of which the capital adequacy is one. The bank's *capital ratio* is defined as the ratio between the total capital and the sum of risk-weighted credit, market and operational exposures. For example the created credit by a bank may be included at its full nominal amount, but it could be included also at 20% or 50%, if the client is sufficiently trustworthy. The proposal created also a credit weighting of 150% for more risky credits. The bank's capital ratio must not fall below 0.08 (8%).\(^{142}\)

For example, an internationally active bank with a total capital of 20 million pesos may create risk weighted credit of up to $10\,000\,000 / 0.08 = 250$ million pesos. If the associated debt is from a very low-risk client (at 20%) then the actual credit may go up to 1 milliard\(^{143}\) pesos. On the other hand, the *adequate capital* of 20 million pesos need not contain more than 10 million pesos of money and may contain much less. Consequently, banks are now permitted to create more than one hundred times more credit than the tangible money they own — if all other conditions are satisfied. The lowering of the tangible money component in the *reserve* for credit creation over time is justified by the ability of banks to get relatively easily short-term loans\(^{144}\) from central and other banks by using their capital and other non-money assets as security. While these Accords are not international treaties and

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\(^{140}\) Basle Committee on Banking Supervision (1988).

\(^{141}\) Basel Committee on Banking Supervision (2001).


\(^{143}\) In the United States one milliard is called one billion. Note however, that in the international system (IS) of units one billion is one thousand 'American billions'.

\(^{144}\) It makes no great difference, if the bank needs corporeal money on loan, or simple bank credit — the cost (interest) is the same.
hence not legally binding on any state or bank, they are followed by governments\textsuperscript{145} and banks generally quite meticulously.

The fiat money is a creation of positive law and the bank credit, as (a substitute of) money, is essentially a creation of economic nature. To finalise the analysis of the bank credit as a component of (or substitute for) money, it needs to be noted that not all tangible money is kept by the banks as a component of the required capital. Much, if not most, of it is circulated between the public and non-bank businesses. Economists seem to agree\textsuperscript{146} that the money supply $M$ is the sum of tangible money in circulation $M_{\text{circ}}$ and bank credit $C$, because the reserve money does not leave the banking sector into the general economic activity:

$$M = M_{\text{circ}} + C \quad (3.1)$$

The government, however, issues both — the circulating as well as the reserve amount of tangible\textsuperscript{147} money $M_{\text{res}}$:

$$M_{\text{issue}} = M_{\text{circ}} + M_{\text{res}} \quad (3.2)$$

For monetary policy and other reasons, it is useful to understand the relationship between the money issue to supply ratio ($M_{\text{issue}}/M$), the bank reserve to credit ratio ($M_{\text{res}}/C$) and the public's cash utilisation practice. Divide eq. (3.2) by $M$:

$$\frac{M_{\text{issue}}}{M} = \frac{M_{\text{circ}}}{M} + \frac{M_{\text{res}}}{M} = \frac{M_{\text{circ}}}{M} + \frac{M_{\text{res}}}{C} \frac{C}{M} \quad (3.3)$$

Substitute $C = M - M_{\text{circ}}$ from eq. (3.1) for $C$ in the numerator of eq. (3.3):

$$\frac{M_{\text{issue}}}{M} = \frac{M_{\text{circ}}}{M} + \frac{M_{\text{res}}}{M} \frac{M - M_{\text{circ}}}{M}$$

$$= \frac{M_{\text{circ}}}{M} + \frac{M_{\text{res}}}{C} \frac{M_{\text{circ}}}{M} \frac{M_{\text{res}}}{C} \quad (3.4)$$

Solving for the total money supply $M$ yields alternatively

\textsuperscript{145} Some governments, as in South Africa, tend to incorporate the accords of the Basel Committee and many recommendations of the BIS in appropriate municipal legislation.

\textsuperscript{146} Makinen (1977), p. 295.

\textsuperscript{147} The government, or its central bank, may replace some or all of the tangible reserve money with account entries at the central bank.
As both, the bank reserve to credit ratio \((\frac{M_{\text{res}}}{C})\) and the public's cash utilisation ratio \((\frac{M_{\text{circ}}}{M})\), are much less than one in modern economies, their product is negligible and the money supply relationship to issued money can be approximated as

\[
M = \frac{M_{\text{issue}}}{M_{\text{circ}} + \frac{M_{\text{res}}}{C}} \quad (3.5)
\]

\[
M = \frac{M_{\text{issue}}}{M_{\text{circ}} + \frac{M_{\text{res}}}{C}} \quad (3.6)
\]

Clearly, when banks decrease the reserve to credit ratio, the money supply increases. Also when the public decreases the utilisation of tangible money in relation to the total money supply in their economic transactions, the money supply increases. In highly developed modern economies, \(M_{\text{circ}} \ll C\) and hence from eq. (3.1)

\[M = C \quad (3.7)
\]

In many modern private law systems credit \(C\) was not, until recently, accepted as money. Yet, the public laws that govern the monetary and fiscal actions of a democratically elected executive branch of the sovereign authority must deal with credit as about the only money according to eq. (3.7).

**In conclusion.**

The South African common law has accepted bank credit directly as money. This does not mean that any tangible money deposited in a bank account is owned by the bank client. It is an international banking custom to deal with this money as property of the bank and this view is accepted in South African law. In this sense, banking law follows directly the Roman law concept of *usufruct*. Where the South African law seems to differ, for example, from the traditional English view\(^\text{148}\) and has evolved beyond the original Roman-Dutch law, is in accepting that the client's interest in and power over the credit amount on his account is money. The client may have this interest and power even in case of an account that is overdrawn, if the bank agrees. To call a spade a spade — the client's right *in personam* to transfer money to himself or another person from the bank is accepted by South African law as monetary

\(^{148}\) See however the approval (for lack of a better word) given to 'intangible money' by Goode (1995) on pp. 492–500.
property. Even though a person’s right in personam to transfer money from any other person is property in his patrimony, it is not a sufficiently liquid asset and is correspondingly not considered as money or monetary property.

5 Legal tender in South African legislation.

Issuing of South African tangible money.

The legal foundation for the South African tangible money or currency is contained in the SARB Act of 1989. The section 10(1)(a)(i–iii) states that the SARB ‘may, subject to the provisions of section 13 … make banknotes …; coin coins [and] issue banknotes and coins …’. Although section 13 has a bearing on some of the subsections of section 10, it has nothing to do with making or issuing of money. Instead, section 14(1) is most relevant (emphasis is added):

‘The Bank shall have the sole right to issue or cause to be issued banknotes and coins in the Republic: Provided that all coins which at the commencement of the South African Reserve Bank Amendment Act, 1989, were lawfully in circulation and legal tender in the Republic, shall as such remain in circulation until they are withdrawn from circulation in accordance with the provisions of section 19, or are no longer of the current mass prescribed in Schedule 2 in respect of the denomination in question.’

It is not clear what circulation means, or how often a coin must change hands in order to qualify as being ‘in circulation’. The natural inclination of looking at the nature of the transaction instead of its frequency does not help in the South African monetary law — see further below. Pre-1989 banknotes are not explicitly left in circulation, but they are not explicitly withdrawn from circulation either. Even though the Reserve Bank has the sole right to issue notes and coins, the form and

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150 In the English law, one would determine if a coin is exchanged (for example) as a collector’s item or used to pay for goods or services in a purchase transaction. It is respectfully submitted that this distinction of the use of a coin is artificial and may originate from the old Roman law’s formalistic distinction between exchange and sale.
material of both are under direct control of the Department of Finance or the Minister of Finance. The Reserve Bank 'may, in its discretion, make payment in respect' of a torn or mutilated banknote, or of a mutilated or worn away coin. But the Bank need not pay for, nor shall it reissue, the above.

'The monetary unit of the Republic shall be the rand (abbreviated as R), and the cent (abbreviated as c), which is one hundredth part of the rand.' This is not immediately meaningful, because since 1989 there is no prohibition in South African law against offering or accepting any number of banknotes and coins of any denomination issued in South Africa. Indeed, some coins (but no notes) in lawful circulation are not denoted in terms of rands and cents. However, if a state intends to impose the doctrine of nominalism, then the tangible money in circulation has to: (a) either bear an inscription of its numerical value (monetary amount) in terms of the monetary unit, or (b) has to have a price in terms of the monetary unit that is fixed by a government fiat (legislative or administrative act). The nominalistic aspect of the South African monetary system is prescribed for the private and juristic persons in an indirect and flexible manner through the legal tender provisions in two separate Acts of legislation.

'Respective values' and 'equivalent amounts'.

The SARB Act of 1989 contains two sections which impose the central role of the rand, only one of which refers to legal tender by name. First, section 18 refers to a general correspondence between the various legally circulating monetary instruments with different denominational units (emphasis is added):

'18 References to amounts in terms of coins issued under Coinage Act, 1922
Any reference in any law, deed, instrument, security for money or other document or in any contract or agreement, whether in writing or not, and any reference in any other manner whatsoever to an amount determined on the basis of the coins specified in the Schedule to the Coinage Act, 1922 (Act 31 of 1922), shall be construed as including a

151 Section 14(2) of the SARB Act, 1989.
152 Sections 14(5) and 16 of the SARB Act, 1989.
153 Section 14 of the SARB Act, 1989.
154 Section 15(1) of the SARB Act, 1989.
reference to an *equivalent amount* determined on the basis of the coins specified in subsection (1) of section 16 and in accordance with the *respective values* of such last-mentioned coins in comparison with the coins in *that* Schedule, as set out in subsection (2) of section 15, and any such reference to an amount determined on the basis of the coins specified in subsection (1) of section 16, shall be construed as including a reference to an *equivalent amount* determined on the basis of the coins specified in *that* Schedule and in accordance with the said respective values.'

It seems that the Coinage Act, 1922, has been repealed. However the relevant (part of) *Schedule to the Coinage Act of 1922* is usefully incorporated into the Reserve Bank Act and the *respective values* are 'set out in subsection (2) of section 15' of the SARB Act of 1989 (emphasis is added):

"(2) The *respective values*, in rand and cent, of coins manufactured and issued under other designations than rand and cent and which by virtue of the provisions of section 14(1) remain in circulation, shall be as set out in the table hereunder:

<table>
<thead>
<tr>
<th>Coin in circulation under the designation of</th>
<th>Value in rand and cent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pound/sovereign</td>
<td>Two rand</td>
</tr>
<tr>
<td>Half-pound/half-sovereign</td>
<td>One rand</td>
</tr>
<tr>
<td>Crown</td>
<td>Fifty cents</td>
</tr>
<tr>
<td>Half-crown</td>
<td>Twenty-five cents</td>
</tr>
<tr>
<td>Florin</td>
<td>Twenty cents</td>
</tr>
<tr>
<td>Shilling</td>
<td>Ten cents</td>
</tr>
<tr>
<td>Sixpence</td>
<td>Five cents</td>
</tr>
<tr>
<td>Threepence</td>
<td>Two-and-a-half cents</td>
</tr>
<tr>
<td>Penny</td>
<td>Ten-twelfths of a cent</td>
</tr>
<tr>
<td>Half-penny</td>
<td>Five-twelfths of a cent</td>
</tr>
<tr>
<td>Farthing</td>
<td>Five twenty-fourths of a cent</td>
</tr>
</tbody>
</table>

This clarifies the calculation of an *'equivalent amount'* to the extent that it is perfectly legal to accept a contractual offer of an amount of, say, 500 rands with the expression "I accept 2500 Florins". This is not necessarily a new offer, because the amount of expectations has remained the same. Two problems remain. The arguably simpler one is the lack of certainty about whether, in an actual tangible money payment transaction, the debtor may or must hand over the tangible coins with the inscription of 'Florin', or the notes and coins with some literally rand-based denominations? It is submitted that this depends on the express or tacit intention of the parties to the contract\(^\text{156}\). The South African

\(^{156}\) Or in any other relevant relationship.
(statutory) law cannot be used to imply any intention, because both kinds of tangible money\textsuperscript{157} are in lawful circulation.

Further investigation shows that in 1922,\textsuperscript{158} the sovereign and half-sovereign were gold coins containing 7.32 grams (0.228 oz) and 3.66 grams (0.114 oz) of fine gold respectively. The half-crown, florin, shilling, sixpence, and threepence were silver coins containing 11.31 grams, 9.05 grams, 4.52 grams, 2.26 grams, and 1.13 grams of fine silver respectively. The penny, half-penny and farthing were made of bronze. Curiously, the crown was not in the original Schedule to the Coinage Act 31 of 1922 — it may have been in a later amended Schedule.\textsuperscript{159}

The more difficult problem is with the coins specified in subsection (1) of section 16. These coins include the precious metal coins and commemorative coins in part (a) of the Schedule 2 to the SARB Act of 1989, which contains no list or table of 'respective values, in rand and cent'. Some of these coins (and their precious metal content) are presently as shown in the table below. The Natura, Protea and Krugerrand have various fractional denominations with corresponding fractional gold contents in ounces\textsuperscript{160}. There is no indication in section 18 of how to calculate the 'equivalent amounts' of, and for, these coins. Note that confusion is caused by the Reserve Bank having issued two and one Rand coins in gold and silver in addition to the two and one Rand coins that are made of much cheaper non-precious metal alloys.

<table>
<thead>
<tr>
<th>Denomination of coin</th>
<th>Standard mass of metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natura</td>
<td>1 oz fine gold</td>
</tr>
<tr>
<td>Commemorative</td>
<td>1 oz fine gold</td>
</tr>
<tr>
<td>Protea</td>
<td>1 oz fine gold</td>
</tr>
<tr>
<td>Two Rand</td>
<td>1/4 oz fine gold</td>
</tr>
<tr>
<td>One Rand</td>
<td>1/10 oz fine gold</td>
</tr>
<tr>
<td>Krugerrand</td>
<td>1 oz fine gold</td>
</tr>
<tr>
<td>Two Rand 50c Silver</td>
<td>1 oz sterling silver</td>
</tr>
<tr>
<td>One Rand 20c Silver</td>
<td>13.92 grams of silver</td>
</tr>
<tr>
<td>2 oz sterling silver</td>
<td>70.67 grams of silver</td>
</tr>
<tr>
<td>1 oz sterling silver</td>
<td>31.20 grams of silver</td>
</tr>
</tbody>
</table>

\textsuperscript{157} Florins and rands.

\textsuperscript{158} As per the Schedule to the Coinage Act 31 of 1922.

\textsuperscript{159} Also, in the original schedule, the English text referred only to sovereign and half sovereign as the only two gold coins, whereas the Afrikaans text referred only to the pound and half-pound gold coins in the Afrikaans spelling 'Pond'.

\textsuperscript{160} One troy ounce (1 oz) equals 32.151 grams of mass of the corresponding elemental precious metal in the coin.
The drafters of this Act of Parliament may have relied on the literal interpretation, because the only way to distinguish between the precious and non-precious metal units of money is by noting that the first is written with the capital 'R' and the latter is written with the lower case 'r'. However, the abbreviation for both is capital R! It is obvious that one should never mention unqualified rand or Rand orally (because they would not be distinguishable), one should never abbreviate Rand, and one should never begin a sentence with rand. It can be doubted if the legislator actually intended to distinguish between rand and Rand, but there is no textual indication to this effect and there is no constitutional principle either for or against this distinction.

It is important to notice that two one Rand coins of gold contain less gold (2x0.10 oz = 0.20 oz) than one two Rand coin made of gold (0.25 oz)! This leads to the absurd situation where ten Rand (such as 10 one Rand coins) is not necessarily equivalent to ten Rand (such as 5 two Rand coins) for most practical purposes. Even more curiously, a 20 cent Silver coin contains exactly as much silver as a two Rand coin made of the same 92.5% pure silver! Further problems are caused by having in lawful circulation identically denominated coins made of different (precious) metals. One would have expected that, by 1989, the problems of 'nominalistic bi-metallism' in the USA and elsewhere were sufficiently known? Unfortunately, using the historically motivated '10 gold Rand' or '10 silver Rand' does not lead to sufficient certainty. First, there are no coins in lawful circulation that are denominated with respect to "gold Rand" or "silver Rand" and neither are therefore covered by section 18. Second, even if 10 gold Rand is interpreted as denoting an amount of money that is 'equivalent' to a number of Rand coins made of gold, we still don't know if two or one Rand coins were intended. Hence, one should write in a relevant document something like: "five hundred Two Rand 162 coins made of silver as per Schedule 2 [as amended by the latest or a particular Government Notice] to the South African Reserve bank Act 90 of 1989"; or "two hundred One Rand coins made of gold as per

161 See section 15(1) of the Reserve Bank Act of 1989 for rand (abbreviated R). This abbreviation, by commercial practice, is placed in front of the numerical value/amount, such as R100 meaning one hundred rand. See the Government Notice 1502 of 15 December 1999 for the two Rand (abbreviated R2) and one Rand (abbreviated R1) gold coins; and the Government Notice 1503 of 15 December 1999 for the two Rand (also abbreviated R2) silver coins.

162 The monetary unit is "Two Rand" and the number of these units of expectations is 500.

It can be argued that, in general, the *equivalent amount* of (or for) the lawfully circulating precious metal coins in the Schedule 2(a) is left to be determined by the parties to an agreement, or by the unilateral issuer of any other document, in which reference is made to any lawfully circulating coins. However, due to the peremptory language of section 18, no party can exclude the implied reference to some equivalent amount — the numerical value of which is not determined by section 18. This difficulty appears irrespective of whether an amount of money is meant, or the different monetary units of lawful South African money are used to measure the expectations of purchasing power of goods and services in exchange transactions. The two are different. As in international trade, the prices of goods and other obligations may be quoted in one unit, but in the actual payment some equivalent amount of another unit may or may not be tendered.

*Legal tender.*

In the special case of an actual *transfer* of tangible money, section 17 of the SARB Act of 1989 does seem to prescribe an unclear method of calculating the *equivalent amount* for some of the lawfully circulating precious metal coins (emphasis is added):

> '17 Legal tender
>
> (1) A *tender*, including a tender by the Bank itself, of a *note* of the Bank or of an outstanding note of another bank for which the Bank has assumed liability in terms of section 15(3)(c) of the Currency and Banking Act\(^{163}\) or in terms of any agreement entered into with another bank before or after the commencement of this Act, shall be a *legal tender* of payment of an amount equal to the *amount specified on the note*.
>
> (2) A *tender*, including a tender by the Bank itself, of an undefaced and unmutilated coin which is *lawfully in circulation* in the Republic and of current mass, shall be a *legal tender* of payment of money —
>
> (a) in the case of *gold coins*, in settlement of any amounts, and the value of each gold coin so tendered shall be equal to the *net amount at which the bank* [sic] is

\(^{163}\) The Currency and Banking Act 31 of 1920 is no longer law in South Africa. All remaining provisions of the Currency and Banking Act 31 of 1920 were repealed by the South African Reserve Bank Act 29 of 1944. The latter was repealed in its entirety by the current South African Reserve Bank Act 90 of 1989. Nevertheless, repeal of these older Statutes does not automatically end the associated liabilities or obligations of the Bank retroactively (Interpretation Act 33 of 1957).
prepared to purchase that gold coin on the day of such tender thereof; and

(b) in the case of other coins, in settlement, per individual transaction, of a total amount not exceeding —

(i) fifty rand, where coins of the denomination of one rand or higher are so tendered;
(ii) five rand, where coins of denominations of ten cents up to and including fifty cents are so tendered;
(iii) fifty cents, where coins of the denomination of five cents or less are so tendered,

and the value of each coin so tendered shall be equal to the amount specified on that coin.

The important part is subsection (2)(a), which deals with payment of an amount of money by tendering the gold coins in lawful circulation. The equivalent amount is established by 'the bank' entirely at its discretion! Note that, prima facie, it is not the Reserve Bank — which is written with capital 'B' — but a bank as defined in section 1(1) of the Banks Act, 1990. The paragraph (a) of section 17(2) is reproduced practically verbatim, with the lower case 'bank', in The Law of South Africa — without any analysis of its meaning or relevance. Closer investigation reveals, however, that in 1989 the Afrikaans version of the Reserve Bank Act was signed by the then State President. In the gazetted Afrikaans text, section 17(2)(a) refers to the Bank (with capital 'B'). Furthermore: the original section 1 of the SARB Act defined the 'Bank' and the 'banking institution', the current section 1 has an unmodified definition of the 'Bank', the definition of the 'banking institution' was replaced with a definition of the 'bank' by section 1 of Act 10 of 1993 and then amended by section 1 of Act 2 of 1996, but the section 17(2)(a), referring to the 'bank/Bank', has not been amended in either of the then two official languages.

The only reasonable conclusion is that the gazetted English text of the South African Reserve Bank Act 90 of 1989 has always contained at

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164 Measured in terms of the monetary unit R, or the other denominations that are impressed on the lawfully circulating coins.

165 Silver coins are the 'other coins' in the subsection (2)(b).

166 The definition of the (Reserve) 'Bank' and (any other) 'bank' is given in section 1 of the SARB Act of 1989.

The error would have been easier to detect in the original text but has become more tricky because of the explicit insertion of the 'bank' into the amended texts. Since the two amended official texts are clearly in conflict, it is submitted that the signed Afrikaans version is binding. It follows that the equivalent quantities of gold coins are determined by the Reserve Bank on the day of their tender — not by just any bank. However, the procedure for determining the equivalence is not known. The writer’s efforts to obtain relevant information from various representatives of the South African Reserve Bank have been without any success.

It seems that the Reserve Bank and the government do not distinguish (much) between gold coins, and other forms of gold (bullion). ‘All gold of the Bank shall be valued at such [statutory] price per such mass of fine gold ... [as is] determined ... by the Minister [of Finance and then] ... published in the *Gazette*. However the Reserve Bank determines its own (different) ‘price at which the Bank buys or sells gold ...’ For example, the SARB publishes regularly average daily fixing prices of gold per fine ounce. The following data was available on the SARB web-site in August 2002:

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168 A few unexplained (not explicitly amended) changes can be found between the various amendments of the Schedule 2 to the SARB Act of 1989.

169 It seems that in 1989 there was a common assumption that the signed version was binding as gazetted. A number of senior law professors have told me that one does not need to look behind the Government Gazette. This procedural aspect of the South African common law seems to originate in the English law. However, at latest since 1996, section 82 of the RSA Constitution determines that ‘[t]he signed copy of an Act of Parliament is conclusive evidence of the provisions of that Act and, after publication, must be entrusted to the Constitutional Court for safekeeping.’ It is not clear if section 82 applies prospectively or retroactively. It is submitted that the purely administrative part about safekeeping at the Constitutional Court should be retrospective, but the substantive part about conclusive evidence should be prospective. Post 1996 amendments of pre 1996 Acts of Parliament should be treated *ad hoc*.

170 Section 25(1) of the SARB Act of 1989.

171 Section 25(2)(b) of the SARB Act of 1989 (emphasis is added). Any difference between the Bank’s price and the statutory price is to the account of the Government’s Gold Price Adjustment Account at the SARB.

172 This is the mass of gold in one Natura, one Commemorative, one Protea, one Krugerrand, four two Rand and ten one Rand gold coins.
The wording of subsection (2)(a) leads to a distinction between payments made to the Reserve Bank and to others. If gold coins are tendered to the Reserve Bank then the Reserve Bank has to be prepared (in some peremptory manner) to purchase ‘that gold coin’ but has discretion over determining ‘the net amount’ for the settlement purpose. If, however, gold coins are tendered to any other person, then section 17(2)(a) does not create any obligation for this person to accept these coins for any amount. Only if the payee does accept the tender of gold coins then neither the payee, nor generally the payor, has any discretion over determining ‘the net amount’ for the settlement purpose — the Reserve Bank does. Interestingly, if the amount of money is expressed in units of some gold coin denomination, such as Krugerrand, and Krugerrands are tendered then the Reserve Bank is not prohibited from determining without discrimination, that a greater number of Krugerrands has to be paid in order to settle this amount. Also, all silver coins are treated nominalistically in a payment transaction — if rand is equivalent to Rand. In other respects the equivalent amount for silver coins is unclear.

Section 17 does not relate to the equivalent amount of rand-denominated money that is tendered in settlement of amounts that are denominated with respect to the precious metal coins. This section does not forbid the tender of some quantity of rands for some goods or service that is priced at, say, 13 Proteas, but leaves it to the parties to determine how many rands would be equivalent. This freedom of the parties may even extend to the case where the rands are tendered directly for the tangible 13 Proteas — this is the case whenever one tries to buy a lawfully circulating gold coin at the great number of jewellery shops. For example, while the SARB price of one ounce of gold may be R3300, the jewellery shops tend to ask around one thousand rand more for a one ounce gold coin of no collector’s value. If, however, the owner of the

<table>
<thead>
<tr>
<th>Price of 1 oz of fine gold</th>
<th>February 2002</th>
<th>March 2002</th>
<th>April 2002</th>
<th>May 2002</th>
<th>June 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>in SA rand</td>
<td>3390</td>
<td>3380</td>
<td>3340</td>
<td>3180</td>
<td>3260</td>
</tr>
<tr>
<td>in US dollar</td>
<td>296</td>
<td>294</td>
<td>303</td>
<td>315</td>
<td>322</td>
</tr>
</tbody>
</table>

173 It would be absurd to propose that the Reserve Bank can simultaneously be ‘prepared to purchase’ a gold coin and not accept a tender of ‘that gold coin’.

174 Than contained in the amount of money to be settled.

175 Personal experience in a number of jewellery shops in Durban, August 2002.
Proteas tenders them for a quantity of rands, then he may not do so at any other price than that determined by the Reserve Bank. The often cited foreign legal distinguishing between the monetary and decorative use\textsuperscript{176} of the precious metal coin is clearly not supported by the SARB Act for this particular transaction. Nevertheless, section 17(2)(a) does not seem to be enforced rigorously by the South African law enforcement authorities.

\textit{South African dual monetary system: nominalistic and metallistic.}

Clearly, South Africa has a dual monetary system. The, by volume, dominating nominalistic system is based on the fiat rand. The other is an exotic and complex multi-metallic multi-denominational coin system. The quantitative link between the two systems is very weakly defined by legislation. The equivalence between the various monetary units seems to be mainly of economic nature — not unlike the foreign exchange ratios. The gold coins are treated in some ways like foreign currency by the Exchange Control Regulations of 1961 — see the next Chapter.

More generally, a tender of tangible money payment is an unconditional offer by a person to hand over money to another in an agreed or prescribed manner. As anything else, this offer may be illegal or legal. Section 17 states that gold coins can be legally offered as payment of money\textsuperscript{177}. Nevertheless, this section is far from stating that the other party needs to accept a tender of an equivalent number of precious metal coins if the amount to be settled is denoted in rand or the other way around\textsuperscript{178}.

\textsuperscript{176} Or commemorative, sentimental, or any other non-monetary use.

\textsuperscript{177} The Government Notices 1503 and 1504 of 15 December 1999 declared explicitly that the two Rand, 50c, 20c, 10c and 5c Silver coins are legal tender. Notices 1500, 1501 and 1502 of 15 December 1999 stated the same with respect to Natura, Protea and Rand gold coins respectively. This does not seem to have been necessary, but removes any doubts about them being in circulation. A tender cannot be legal without the law permitting the tendered money to 'circulate'.

\textsuperscript{178} On the 14th of August 2002, the writer approached his Nedbank Branch in Durban and asked for what price would Nedbank \textit{be prepared to purchase} such gold coins as Protea, two and one Rand, or Krugerrand. After being sent from one bank employee to another, I ended in the foreign exchange office. A few phone calls later it was established that the Nedbank (one of the major commercial banks in South Africa) did not have this purchase price for gold coins. After reminding the Nedbank that the mentioned gold coins were legal tender and a couple of more phone
The special case of a loan repayment is regulated by section 2 of the Currency and Exchanges Act 9 of 1933 (emphasis is added):

'2 Obligation to repay loan in any particular money may be fulfilled by payment in Union legal tender

(1) Whenever in terms of any contract of loan of money the debtor is under an obligation to repay the money lent or any portion thereof or pay any interest thereon in coins or notes or other instruments which are, or at any time were, legal tender in the Union, whether such obligation arose before or after or partly before and partly after the commencement of this Act, he may at his option fulfil such obligation by the payment of the amount which he is bound to pay in notes of the Bank or in coins which are legal tender in the Union at the time when the payment takes place (to the amount to which they are legal tender).

(2) ... [refers to recovery of overpaid amounts]'

Only in the particular case of loan repayments, the creditor has clearly no choice — despite any prior agreements with respect to the specific form of tangible money of payment. The debtor has been empowered by the Currency and Exchanges Act of 1933 to decide which of the numerous monetary instruments to use in satisfying the payment obligation. 179 A superficial reading of the section 2(1) above, might give an impression of a pure nominalistic provision. However, the appended expression 'to the amount to which they are legal tender' points clearly toward the peremptory 'equivalent amount' in section 18 of the Reserve Bank Act. The equivalent amount of gold coins (except the old sovereign and half-sovereign which are nominalistically linked to two and one rand180) can be ascertained only in case when gold coins are tendered. 181 Therefore it is submitted that the section 2(1) of the Currency and Exchanges Act of 1933 has a generally undefined implication about the

calls to the legal department in the Nedbank headquarters in Johannesburg, it was established that Nedbank had stopped accepting (and selling) gold coins in about 1997 — for purely economic reasons. Apparently, the costs associated with providing physical security for the transport of gold coins had become exorbitant.

Next day, the Standard Bank was found to have the same position — no dealing with gold coins.

179 If legal tender was intended, then only another form of notes and coins can be used. This does not necessarily mean that the creditor may refuse to accept credit transfer through banks because the banking transaction may very well lead to these notes and coins becoming available during the last stage of the payment. This is more properly analysed under the topic of payments — see also section 4 of this Chapter.

180 Section 15(2) of the Reserve Bank Act of 1989, which also links the old silver coins nominalistically to fractional rand amounts.

181 Section 17(2)(a) of the SARB Act.
'equivalent amount' of rands to be paid, unless the relationship between the precious metal coins and other monetary amounts are determined in, or can be determined from, the loan agreement itself.

On the lack of compulsion in legal tender.

The lack of a general compulsion to accept all legal tender at the discretion of the payer is historically not necessarily expected and needs some clarification. At the time when Professor Arthur Nussbaum wrote, there seemed to be a general consensus that:

'legal tender (in German: gesetzliches Zahlungsmittel) is money which a creditor is not privileged to refuse if it is tendered by a debtor in payment of his debt. ... [However, compulsion upon the creditor which is inherent in legal tender can be created only by law. In modern times this is done by way of legislation rather than of custom. ...'

English developments are particularly interesting. After being compelled, in the course of the Napoleonic wars, to suspend cash payments on the notes of the Bank of England, the English government caused an act to be passed in 1812, by which sheriffs enforcing an order of a court for the payment of money, were required to accept payment for the judgment creditor in bank notes. This meant that a creditor who would enforce payment had to accept notes despite the fact that the notes could not be pressed upon him out of court. If the creditor preferred to wait until resumption of cash payments by the bank (which occurred in 1821) he would be entitled to gold. The effect of the Act was very similar to that of legal tender provisions, but at least appearances were preserved. In 1833 the notes were made legal tender for as long as the bank should maintain their convertibility. This formula, which met the main objection urged against legal tender notes, was left intact during World War I. Actual withdrawal of gold from the bank was practically prevented, however, by public declarations that a request for gold would help the enemy. In 1928 the notes became unconditional legal tender. Convertibility was abolished in 1931.

Making government paper money — as distinguished from bank notes — legal tender did not meet with a similar doctrinal opposition. ..."182

The corresponding discussion of the legal tender by Dr. F. A. Mann is less clear in some respects:

'Legal tender is such money in the legal sense as the legislator has so defined in the statutes organizing the monetary system. ...'

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182 Nussbaum (1950), pp. 45-48. The original footnotes are not reproduced.
The effect of bank notes and coins having the quality of legal tender is that the creditor to whom the appropriate amount thereof is proffered and who refuses acceptance runs the risk of being prejudiced in certain respects. In this sense, therefore, it is, unless a different intention appears, incumbent on the creditor to accept legal tender in discharge of the debt (\textit{cours légal, Annahmezwang}).\textsuperscript{183}

Mann apparently misses the important point that no legal or other practical consequences follow directly for the creditor, when some tangible monetary instrument is defined to be 'legal tender' by some statute — this is either just a name or a statement that a particular tender by the debtor is not against law\textsuperscript{184}. Rather, it is the 'effect' of this classification that the legislator has to prescribe. Nussbaum is logical when he states that the '[c]ompulsion upon the creditor' to accept certain kind of money is created by legislation. But he seems to contradict himself when he considers this compulsion to be 'inherent in legal tender' — especially when explicitly rejecting the 'custom' as an authority for this compulsion.\textsuperscript{185} There is no law of nature known to this writer that would make this compulsion inherent in the legal tender. It would be illogical for courts to second guess the legislation and imply some compulsion into an artificial classification in a legislation if the latter does not prescribe this compulsion to its subjects. Instead, the legislator has the authority to define how (and if at all) the legal tender legislation leads to a compulsion to accept some tendered monetary performance.\textsuperscript{186}

This is particularly so in the complex and unusual South African monetary system and legislation, where some legal tender in some situations leads to the above compulsion and in some other situations it does not. The present South African monetary system is not comparable to the typical systems in England or continental Europe of the nineteenth and twentieth centuries, where the sole purpose of the legal tender

\textsuperscript{183} Mann (1992), pp. 42-43. The original footnotes are not reproduced.

\textsuperscript{184} Nussbaum (1950), pp. 55-56, usefully highlights the historical English and American association of 'legal tender' with 'lawful money' and the 'lawfulness of newly issued coins or notes'.

\textsuperscript{185} It would be preposterous to leave an impression as if two of the greatest 20\textsuperscript{th} century monetary law authorities, Arthur Nussbaum and F. A. Mann, were not fully aware of the long established consensual nature of payment, meaning that the creditor was not necessarily under a legally enforceable obligation to actually accept the tendered payment — legal or otherwise. However, this is properly discussed under the topic of payment.

\textsuperscript{186} As was done by the South African Mint and Coinage Act 78 of 1964, now repealed.
legislation was to enforce the principle of nominalism. Contrary to Nussbaum’s opinion, it is submitted here that the characterisation of money as *cours forcé* (Zwangskurs) — instead of as legal tender — ‘brings about compulsory circulation’.  

The teeth of the compulsive character of the South African legal tender were pulled by the repeal of the Mint and Coinage Act 79 of 1964 in 1989 by the South African Reserve Bank Amendment Act 49 of 1989. See also the corresponding analysis of the previous legal dispensation and its demise in the two bank credit related sub-sections of section 4 above. The present day South African monetary system is clearly not (completely) nominalistic. There seem to be some similarities with the American monetary system where the notion of *refusable money* (or *publicly receivable money*) has been in legal use for a long time. In Nussbaum’s opinion, ‘[*r*efusable money may be assimilated with legal tender by obligating the government (or the central bank) to receive that money in payments due to the government while private creditors are not placed under a like obligation. ... Its effectiveness was impressively demonstrated in 1923 when the German government by the issuance of *Rentenbankscheine* which were publicly receivable bank notes, succeeded in overcoming one of the most pernicious inflations in history.’

*Who owns money?*

The South African Reserve Bank Act of 1989 retains some other remnants of a metallistic monetary system and the associated separation of paper money (banknotes) from metallic money/coins. In particular, there is no explicit provision for withdrawing banknotes from circulation, whereas section 19 explicitly authorises the Minister of Finance to withdraw coins from circulation:

> 19 Powers of Minister in respect of coins
> (1) The Minister may from time to time by notice in the Gazette—
> (a) determine the dimensions of and design for any coin as well as the compilation of any series of coins; and
> (b) authorize the withdrawal from circulation of—
> (i) so many coins as he may deem to be in excess of requirements;

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188 *Bank credit is equivalent to money in law and Bank credit is money.*

(ii) coins of a specified date or of specified dates or of a specified denomination or of specified denominations.

(2) A notice issued under subsection (1) shall come into operation on a date specified therein, and the provisions thereof shall have force of law as if they were enacted in this Act.'

This provision can have very serious consequences for commercial relationships. If a contract specifies entirely lawfully a future payment of an amount denominated in Proteas and the Minister of Finance withdraws all Proteas from circulation and retracts their status as legal tender, then the contract may be in danger of becoming retroactively void for vagueness, because there is currently no legislated way to determine the equivalent amount of money in rand or in any other circulating denomination. The explicit legislative power given to the Minister of Finance by the subsection (2) above may be unconstitutional — sections 55, 68 and 73 of the RSA Constitution of 1996 read together seem to authorise only the Parliament to amend the SARB Act of 1989.

 Withdrawal of all coins of a particular denomination can be argued to amount to an amendment of Schedule 2 which has to be laid ‘upon the Tables in Parliament’. Specific tangible tokens of money — notes and coins — will eventually disappear from circulation by rejection of their tender. One of the practical reasons for refusing to accept specific tokens by public is based on suspicion that the Reserve Bank (and therefore other banks) may regard a banknote or a coin to have been mutilated. There is no indication as to what the public may do with such ‘mutilated’ notes and coins.

190 With carte blanche authority from the Parliament.

191 Withdrawal of an entire denomination is more than just an administrative act of Government and section 19(2) does not even pretend to be of purely administrative nature.

192 Or any other Act of Parliament. See also Chapter IV on the constitutional situation.

193 Ex post facto — section 16(4) of the SARB Act of 1989.

194 Section 14(4): 'The Bank shall not be obliged to make any payment in respect of a torn banknote or a banknote which, in the opinion of the Bank, is mutilated and which may be tendered to it ...'.

Section 14(7): 'The Bank shall not be obliged to make any payment in respect of a coin which, in the opinion of the Bank, is mutilated or worn away and which may be tendered to it ...'.
Since money is practically always the property of its holder, the owner has full *dominium* over it and may presumably do as he or she wishes — including the destruction of such suspect money. This should be the same in case of money that is not yet mutilated. However, section 34 of the SARB Act deprives the owner’s *dominium* over her tangible money.

Any person who ‘wilfully defaces, soils or damages any note of the [South African Reserve] Bank, or writes or places any drawing thereon or attaches thereto anything in the nature of an advertisement, or wilfully defaces or damages any coin which is legal tender’\(^\text{195}\) ‘shall be guilty of an offence’\(^\text{196}\). It can be argued that this limitation of property rights does not apply to notes and coins that were previously mutilated (by unknown causes) in the sense of section 14 of the SARB Act. But who decides if the damage was sufficient to qualify as mutilation? The above limitation may be justified by the inconvenience and uncertainty about the acceptability of ‘mutilated’ notes and coins that remain in doubtfully legal circulation.

The same justification does not apply if a person shall be guilty of an offence when she, ‘without the written approval of the Department of Finance, intentionally destroys, melts down, dissolves in any dissolvent, breaks up or damages a coin that has been issued ... under section 14 of this Act’\(^\text{197}\).

This seems like arbitrary deprivation of property\(^\text{198}\) and is arguably unconstitutional in its general form. If section 34(1)(k) was restricted to coins in Schedule 2(b) only, then one could perhaps argue that the state is enforcing nominalism in the interest of sustained economic activity. There is no such interest in issuing precious metal coins in Schedule 2(a) which trade at or above their metallic value anyway. This topic will be analysed further in Chapter IV.

\(^{195}\) Section 34(1)(f) of the SARB Act of 1989.
\(^{196}\) Section 34(1) of the SARB Act of 1989.
\(^{197}\) Section 34(1)(k) of the SARB Act of 1989.
\(^{198}\) Section 25(1) of the Bill of Rights, RSA Constitution of 1996.
6  Money in intermediated payments.

Payee has recourse to payer when intermediary owns the money (117); Enforcement of right to payment against intermediary (118); Letters of credit (120); South African position on autonomy of documentary credits (121); Ex parte Sapan (123); Right is property but duty is not (127); Ownership of credit — personal or real right? (128); No autonomy of documentary credit in Ex parte Sapan (129); Vereins- und Westbank v Veren Investments (130); Fraud exception remains effective until the (deferred) payment date (133); Contract between applicant and bank for the beneficiary (134); 'Intentionally mistaken' crediting of a bank account? (136); No right to payment — no duty to pay money (138); No mistake in the consensual transfer of money? (142); Some mistaken credits (and debits) can be reversed (143); What now? (145).

As was analysed in section 4 of Chapter II, payment means performance of a generally bilateral duty. If this duty relates to money, the ownership in a sum of money has to be transferred from one person to another. In modern consumer and commercial transactions, the direct transfer from hand to hand is used for small amounts only. Various intermediaries facilitate the fulfilment of the money payment duty in various ways. Some of those seem to be well understood and do not require much comment in this work, but some are still controversial and misunderstood. In the first group are those payment transactions where the ownership is transferred directly from the payer to the payee. Such may be the case, when the facilitating third party acts as an agent for the payer or payee — there are only two principals.

Another example is when an independent third party holds the money for the payer and is then instructed to hold it for the payee — this is transfer by attornment. Yet another possibility can be when the facilitator merely acts as a carrier of money without being the agent of either party. In Saambou-Nasionale Bouvereniging v Friedman 1979 (3) SA 978 (A), Jansen AR found at 989F-G this to be so in respect of a cheque that had been given, apparently by Friedman, to a certain Weinstein for delivery to Saambou:

'By analyse van die getuienis blyk die beoogde rol vir Weinstein egter analog aan dié van 'n bode te gewees het — sy funksie was broo om die aansoekvorm en die tjek aan Saambou te besorg. Hy was broo 'n geleibuis en het

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199 This is in the English and South African sense. A continental commercial agent, commissaire, does not qualify because he would pay and be paid as a separate person. (Schmitthoff, 2000, p. 598, para 27-C15)
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geen volmag bekom om self enige wilsverklaring namens Friedman te doen nie.200

However, this messenger's role is not necessarily easy to establish. At 1001A-B, Jansen JA distinguished the Friedman's case from De Clerq v Steyn 1930 TPD 747, in which the intermediary did become the owner of a personal right ('promise'):

'In daardie geval sou, ondanks die bedrog van die tussenganger, eiendomsreg van die promesse tog op die tussenganger en van hom op die nemer oorgegaan het. Die maker van die promesse het bedoel om die eiendomsreg oor te dra, en aangesien ons die abstrakte stelsel van eiendomsoordrag handhaaf, sou die bedrog nie die eiendomsoordrag in die weg gestaan het nie.'201

Payee has recourse to payer when intermediary owns the money.

This leads us to the second group of ways in which intermediaries can facilitate the transfer of money in payment obligations. Things become more complex when the facilitator may be, or may become at some stage, the owner of the money that is involved in the performance of the original payment duty. Some of the problematic issues relate to the rights of the payee in respect of the facilitator and the money in his ownership (or possession). They are present in the payment procedures that are based on the use of credit cards and documentary letters of credit.

It is submitted that, as a general rebuttable principle, payment procedures which utilise money owned by a third party — even if the payee has somehow obtained a lawfully enforceable right to demand performance from the third party directly — should vest in the payee the right of recourse to the payer. One must then distinguish between the cases where the recourse is unconditional (the payee has a discretion to choose between the alternatives) or conditional on non-performance by the intermediary. There is very little case law on this question in relation...

200 In English something like: 'After analysing the evidence, it seems that Weinstein's intended role was analogous to that of a messenger — his task was merely to deliver the application form and the cheque to Saambou. He was merely a conduit and had received no authority to express any intentions on behalf of Friedman.'

201 In English something like: 'In that case, despite the fraud committed by the intermediary, the right to the promise did transfer to the intermediary and from him to the transferee. The promisor had intended to transfer this right, and following from our abstract transfer of ownership, the fraud could not stand in the way of the transfer of ownership.'
to credit cards. In relation to documentary credits, Schmitthoff (2000), at p. 208 with references to English cases, states the relevant law as follows:

'In principle, where the parties to the contract of international sale have arranged for the payment mechanism of a letter of credit, they must abide by their agreement and cannot short-circuit the credit by making direct claims connected with the payment of the price against each other. ... Exceptionally, however, the short-circuiting of the letter of credit arrangement is admissible. In the ordinary way the credit operates as conditional payment of the price; it does not operate as absolute payment.'

In the case *E D & F Man Ltd v Nigerian Sweets & Confectionery Co Ltd* [1977] 2 Lloyd's Rep 50, sugar was supplied under irrevocable credit to the Nigerian buyers who transferred the purchase price to the issuing bank. The bank went into creditors' voluntary winding up before paying the sellers. Ackner J said at 56:

'It follows from the findings that the letters of credit were given only as a conditional payment, that if they were not honoured the respondents’ debt has not been discharged. This is because the buyers promised to pay by letter of credit not to provide by a letter of credit the source of payment which did not pay ... The respondents' liability to the sellers was a primary liability. This liability was suspended during the period available to the issuing bank to honour the drafts and was activated when the issuing bank failed.'

Nevertheless, it is open to the parties to agree in their contractual relationship that the payment via a third party is absolute, without the payee’s recourse to the payer. Strictly speaking, this is then not a duty to pay money, because the payer's obligation ends after providing the agreed or otherwise suitable intermediary with the adequate amount of money in his possession or ownership.

* Enforcement of right to payment against intermediary.

The above explained recourse to payer gives the payee a margin of comfort, should the intended payment arrangement fail. There are however compelling commercial reasons to find legal ways for the payee to enforce the agreed payment mechanism via the third party, in preference over the somewhat comforting secondary direct option. It may

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202 See Eitelberg (2000c).

203 In relation to money.
be sufficient to rely on the banking honour, and business sense in small-amount consumer payments via credit (or debit) cards — and accept the very improbable failures or take insurance against those failures. In international commercial payments, however, the stakes are much higher in most individual transactions and legal certainty is clearly of very high priority. Despite wide-spread use of payment intermediation, there seems to be a jurisprudential difficulty in most traditional legal systems. Although the third party may perform the payer’s duty for the benefit of the payee without further steps there is no obligatory link between the third party and the payee. The obvious existence of these intermediated payment mechanisms in general and the irrevocable documentary credit in particular is ‘something of a legal puzzle’, as Crawford and Falconbridge (1986) put it:

There is apparently no theory in either civil or common law that entirely satisfactorily explains or assures the operation of a typical irrevocable letter of credit. There is no difficulty with the revocable credit. Although it is sometimes referred to loosely as a contract and may become a contract when the seller’s tender of a conforming performance is accepted by the bank, in view of the fact that the issuing or confirming banks typically receive no consideration from the seller for their offers to pay upon presentation of the specified documents, such credits appear to constitute only revocable offers by the banks. ... But what theory binds the issuing or confirming bank to pay on the demand of the beneficiary of an irrevocable documentary credit when that person is a third-party beneficiary of the contract with the customer that caused the credit to be issued? And what theory prevents the bank from withdrawing or revoking its letters of credit before communication of acceptance? The obvious problem of common law theory is whether there is a consideration. Lord Mansfield sought to sweep that technicality aside by making a banker's written promise that he would accept bills of exchange drawn by his customer, enforceable and irrevocable without consideration. While such a development in the common law theory of contract would have prevented the present difficulties from ever arising, at least in connection with letters of credit, most observers consider that Lord Mansfield’s initiative was effectively repudiated by later courts by a “series of blows from which it has not yet recovered”.  

Nevertheless; 

204 If the payee accepts.
205 This problem is the same in any transfer of ownership through intermediaries and is solved often statutorily.
206 At p. 840.
... virtually all commentators agree that the absence of a completely satisfying theory must not be permitted to impair the reliability and continued commercial importance of documentary letters of credit. ... courts and commentators seem to accept that the importance of credits and their continued use by both bankers and businessmen are such that they simply must be recognized as binding legal obligations.\textsuperscript{207}

Letters of credit.

The international payment of money using irrevocable letters of credit is arguably the best known and much used example where these legal difficulties are prominently present. The international and South African positions have been analysed by many writers. In South Africa, the latest have been Professor Charl Hugo (1996), (2000) and (2002) and the present writer Eitelberg (2000c) and (2002).\textsuperscript{208} As there is very little other South African case law to work with, we can only analyse the payments with the help of documentary letters of credit. However, much that can be learned from documentary credit can be useful for understanding other intermediated payment mechanisms.\textsuperscript{209}

One of the most difficult aspects of intermediated payments is the legal relationship between the payee and the intermediary. As the delivery of the property to be transferred usually begins from the payer, there is relatively little problem of finding sufficiently binding consensus in the first delivery of the property or property related instructions between him and the facilitator. It is the resulting legal relationship, if any, between the facilitator and the payee that has caused problems. Especially, the commercially desirable autonomy of this relationship is not easily found in many legal systems. Hugo (2002), with reference to the documentary credits, states that '[t]he independence principle and its boundaries is one of the most complex issues in the law of documentary credits.\textsuperscript{210} After acknowledging the existence of alternatives, Hugo (2000)

\textsuperscript{207} At p. 842.

\textsuperscript{208} The latter includes significant new material that was not available during the writing of the LL.M. dissertation in 2000. The SALJ article of 2002 is substantially different from the dissertation which had the explanation of the use of credit cards as its primary goal. Some of this section is based on the SALJ article and the few possible references to the dissertation are omitted.

\textsuperscript{209} Including those yet to be invented.

\textsuperscript{210} At p. 105, n. 21.
concludes his article\textsuperscript{211} '...by briefly stating the construction which, to [his] mind, appears to be the most satisfactory.'

(i) The issuing or confirmation of the credit amounts to an offer by the bank to the beneficiary.

(ii) An express acceptance of this offer by the beneficiary is the exception rather than the rule. The beneficiary manifests his acceptance of the offer tacitly by failing to reject it. From this moment the bank is contractually bound and the credit irrevocable.

(iii) Prior to acceptance of the bank's offer, there is no reason why the bank, as against the beneficiary, should not be entitled to revoke the offer. However, it is possible that the bank may be contractually bound as against its correspondent or customer not to revoke the offer from the moment of dispatching it.

(iv) The contract established in this manner between the bank and the beneficiary is factually related to the contract between the bank and its client (the buyer) as well as to the contract between the buyer and the seller (the beneficiary). However, legally it is independent of both these contracts.\textsuperscript{212}

This construction is motivated (among other things) by Professor Hugo's finding that 'the few \textit{obiter} dicta relating to the legal nature of the bank-beneficiary relationship in South African case law ... clearly favour a contractual approach.'

Without disputing the correctness of the 'contractual approach', it is submitted that the \textit{rationes decidendi} of at least two of the reported South African cases permit and, indeed, require an amendment of the above construction. In particular, the internationally accepted principle of autonomy (independence), as characterised by the UCP 500 of the International Chamber of Commerce (ICC), is not supported by the South African case law. This will be shown next.

\textit{South African position on autonomy of documentary credits.}

There is so far a single decided South African Appellate Division case that deals with the relationship between the issuing bank and the seller: \textit{Loomcraft Fabrics CC v Nedbank Ltd and Another} 1996 (1) SA 812 (A). Scott AJA states that the essential feature of an irrevocable documentary credit

'... is the establishment of a contractual obligation on the part of a bank to pay the beneficiary under the credit (the

\textsuperscript{211} This conclusion was not modified in Hugo (2002).

\textsuperscript{212} Hugo (2000), p. 255.
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seller) which is wholly independent of the underlying contract of sale between the buyer and the seller and which assures the seller of payment of the purchase price before he parts with the goods forming the subject-matter of the sale. The unique value of a documentary credit, therefore, is that whatever disputes may subsequently arise between the issuing bank's customer (the buyer) and the beneficiary under the credit (the seller) in relation to the performance or, for that matter, even the existence of the underlying contract, by issuing or confirming the credit, the bank undertakes to pay the beneficiary provided only that the conditions specified in the credit are met. The liability of the bank to the beneficiary to honour the credit arises upon presentment to the bank of documents specified in the credit, including typically a set of bills of lading, which on their face conform strictly to the requirements of the credit. In the event of the documents specified in the credit being so presented, the bank will escape liability only upon proof of fraud on the part of the beneficiary. ... The autonomous nature of the obligations owed by the bank (whether the issuing bank or, if there is one, the confirming bank) to the beneficiary under a credit has been stressed by courts both in South Africa and overseas.213

The learned judge does not say which contract creates the obligation to pay (or how it is created). Two of the most naturally possible constructions of the 'contractual obligation' in this dictum are (a) ius quae
ter
tio214 (contract between the applicant and issuing bank for the 'benefit' of the third party/beneficiary) and (b) cession by the applicant of some of its contractual rights to the beneficiary. There is nothing in the report to suggest that Scott AJA referred to a contract between the bank and beneficiary. The suggestion that the 'liability of the bank to the beneficiary to honour the credit arises' only after presentment of documents215 — which is an explicit act and not a mere failure to reject the offer of the documentary credit — contradicts (ii) of Hugo's construction. Despite stating the commercial custom and the internationally accepted lex mercatoria generally correctly, this judgment alone is not helpful for understanding the jurisprudential foundations of this difficult part of law. Two other South African cases are cited approvingly by Scott AJA.

In Phillips and Another v Standard Bank of South Africa Ltd and Others 1985 (3) SA 301 (W), Goldstone J concisely expressed a view,

213 At 815G–816D.
214 Christie (2001), at 300ff.
215 Loomcraft Fabrics CC v Nedbank Ltd and Another 1996 (1) SA 812 (A), at 8151.
similar to the international status quo, regarding irrevocable documentary credit and fraud. He stated (albeit *obiter*) that 'in [his] opinion the documentary credit issued in this case does indeed constitute a contract independent of the contract of purchase and sale between the ...' buyer and the seller. Goldstone J gave no reason for his opinion that there was a contract between the bank and beneficiary — except that the buyer in this case also believed so. Notably, Goldstone J did not exclude the possibility that the documentary credit was not independent of the contract between the applicant and the issuing bank.

*Ex parte Sapan.*

However, the other approvingly cited case, *Ex parte Sapan Trading (Pty) Ltd* 1995 (1) SA 218 (W) dealt with some interesting arguments and points of view when compared to the generally cited English language precedents. Some of the court's arguments could be considered *obiter* dicta, but some created South African precedents that were not overruled or contradicted by the Appellate Division in *Loomcraft* above. Three judges — Streicher J, Schutz J and Heher J — sat on this appeal from a decision in the Witwatersrand Local Division. (The judgment of the court was given by Streicher J, with Schutz J adding a short, concurring judgment.)

A dispute arose between the South African buyer, Sapan Trading (Pty) Ltd, and the German seller, Finetrade Vermittlungs GMBTT (sic). The applicant, Sapan,

'... ordered goods from Finetrade and effected payment to Finetrade by way of [seven] letters of credit established by the applicant in favour of Finetrade as beneficiary. ... It was specifically agreed between the applicant and the seller that all ... fees ... occasioned in the process of releasing the goods from the docks and having them delivered to the purchaser, would be paid by the seller.'

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216 See also the analysis in the LLD dissertation of Professor Charl Hugo (1996) at pp. 348–356.

217 Albeit not binding in the rest of South Africa outside the Witwatersrand Local Division.

218 *Ex parte Sapan Trading (Pty) Ltd* 1995 (3) CLD 200 (W). The arguments in the judgment of Stegmann J in the court a quo are of great value as well, they have been analysed by Hugo (1996).

219 It is probably a spelling error — it should have been GmbH (Gesellschaft mit beschränkter Haftung), which is approximately the German equivalent to a private limited liability company.

220 At 221B–D.
It was alleged by Sapan that of the total claimed fees of R2 156 234.68 only R339 840 had been paid by Finetrade. The letters of credit were irrevocable but unconfirmed. German advising banks were requested to pay the amounts due in terms of the letters of credit on maturity, and the German banks would be funded by the issuing banks. The applicant, while accepting ‘that an issuing bank could not be interdicted from paying out the proceeds of a letter of credit’, Nevertheless wished to attach the claims to the proceeds of the last four unpaid letters of credit totalling R2 092 000. It was submitted on behalf of the applicant, that

‘... instead of paying the proceeds to the beneficiary ... the bank pays same to the deputy sheriff [in South Africa], who receives them on behalf of the beneficiary and holds them as security for the plaintiff's claim.'

Note, that whatever one could aver about the seller's business methods, the above facts do not contain any indication that fraudulent documents were presented to the banks. If there was any fraud, it clearly was not an issue in the relationship between the beneficiary and banks.

Streicher J disagrees with some of the reasoning of the Court a quo for the dismissal of the application. It is not always clear when he criticises the Court a quo (obiter) and when he gives reasons for his own judgement. The following quote serves both purposes:

'Each of the letters of credit is an irrevocable undertaking by the issuing bank to the beneficiary, Finetrade, which gives rise to a contract between the issuing bank and the beneficiary. The agreement between the issuing bank and the beneficiary is the result of a contract between the applicant and Finetrade in terms of which the credit had to be established, and of a contract between the applicant and the issuing bank, but is separate from, and independent of, such underlying contracts. The beneficiary is advised of the terms of the letter of credit and not of the terms of the application to the issuing bank. It is therefore the letter of credit and not the application that embodies the agreement between the issuing bank and the beneficiary. Should the letter of credit not be in accordance with the application that fact would be relevant insofar as the contract between the applicant and the issuing bank is concerned, not insofar as the contract between the issuing bank and the beneficiary is concerned. The Court a quo therefore erred in holding that the contracts between Finetrade and the issuing banks could not be determined without reference

221 At p. 225.

222 At p. 225.
to the application for the establishment of the letters of credit, which have not been produced.

In terms of the letters of credit to which this application relates, Finetrade has a right against the issuing banks in terms of which they are obliged to perform in terms of their undertaking as per the letters of credit. That right is an asset, and what has to be decided in this case is whether that right can be attached *ad fundandum jurisdictio* or *ad confirmandum jurisdictio*.

According to Streicher J, the 'irrevocable undertaking ... gives rise to a contract between the issuing bank and the beneficiary'. In other words, the irrevocable undertaking precedes the mentioned contract. Hugo mentions that the irrevocability (an essential element in the principle of autonomy) may therefore arise from trade custom rather than from this contract. However, in the context of the entire judgment, it seems more probable that the 'irrevocable undertaking' is created by the contract between the applicant and the issuing bank and the right to this undertaking is transferred onto the beneficiary in accordance with the terms of this contract (and law) alone — either 'for the benefit of the beneficiary' whereby initially only the applicant and the bank but eventually also the beneficiary must agree to the transfer of rights, conditions and perhaps even some obligations; through 'cession of the rights to payment to the beneficiary' whereby the banks agreement is not essential for the transfer of rights; or through some other mechanism.

Both, *ius quaesitum tertio* as well as cession, would bring the agreeing beneficiary into the ambit of a contract — which undoubtedly exists — with the right to demand performance of payment (and other rights) defined by some of the terms of this contract as evidenced by the letter of credit. Other terms of this contract may have no consequence for the beneficiary, especially when they are not incorporated in the letter of credit. Therefore, the existence of a separate contract between the issuing bank and the beneficiary is not necessarily an important issue. Significantly, UCP 500 neither mentions this contract, nor evidences any presumption of its existence.

The last part of the quoted dictum — in relation to the beneficiary's right against the issuing bank — is heavily qualified by a recent judgment by Stegmann J. This will be analysed later.

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223 At 223H–224C

First, Streicher J deals with the applicant's suggestion that the attachment could be accompanied by an order to pay the irrevocable documentary credit proceeds to a deputy sheriff. After citing the authoritative *Intraco Ltd v Notis Shipping Corporation of Liberia* (The Bhoja Trader) [1981] 2 Lloyd's Rep. 256, he dismisses this suggestion because 'the undertaking was to pay in Germany and not to pay in South Africa, as would be the result if the order that is sought were to be made'.

This is precisely the reason for the opinion of Schmitthoff (1988) that the payment may be governed by the law of the advising bank (in Germany). Streicher J, however, does not follow this line of reasoning further and, without any explanation or justification, embarks on an alternative course to dismiss the application. Schutz J explains this change of course in his own concurring judgment:

>'In England the irrevocability of letters of credit is usually protected by the refusal of interdicts aimed at preventing payment by the issuing banks. A court in such circumstances has a discretion. That route is not open to us. If it had been, I would have followed it. But an applicant for attachment, in circumstances such as arise in this appeal, has a right to make an attachment, so that it becomes necessary to proceed upon some different route.'

The lack of discretion is formulated thus in *Longman Distillers v Drop Inn Group of Liquor Supermarkets (Pty) Ltd* 1990 (2) SA 906 (A), at 914E–F:

>'In our law, once an *incola* applicant (plaintiff) establishes that *prima facie* he has a good cause of action against the peregrine respondent (defendant), the Court must, if other requirements are satisfied, grant an order for the attachment *ad fundandam* of the property of the peregrine respondent (defendant).'

Hugo (1996) submits that '... the principle negating a discretion in applications of this nature is not absolute.' Here it is suggested that *Ex parte Sapan* may be distinguished from *Longman Distillers* by the fact that, in the latter, the payment was due within while, in the former, it was due outside the court's jurisdiction — hence the court could have

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225 At 226H.

226 In the Chapter 'Conflict of laws issues relating to letters of credit: An English perspective'.

227 At 228C–D.

used discretion\textsuperscript{229} to set a new South African precedent and simultaneously have followed the dominant international mercantile legal practice.

\textit{Right is property but duty is not.}

It is further submitted that the court could have satisfied the applicant by founding jurisdiction on the attachment of the beneficiary's right in its jurisdiction — without interfering with the various issuing banks' obligations to transfer credits to the advising banks as their respective agents (or mandataries) and the associated final stage transfer of money to the beneficiary outside the court's jurisdiction. In \textit{MV Snow Delta Serva Ship Ltd v Discount Tonnage Ltd} 2000 (4) SA 746 (A), at 753E-H, paras 9–10, Harms JA very clearly distinguishes between rights and obligations in the following 'trite observations':

'Rights in relation to the \textit{(contractual) performance (obligatio) of another have since time immemorial been classified as incorporeal. The obligation of the debtor is not property; it is the right (often referred to as the "action") of the creditor. Obligations can therefore not be attached because they do not form part of the patrimony of the creditor, whereas rights can be attached and do form an asset in the estate of the creditor. Intangibles by their very nature cannot have a physical locality. ... For purposes of, for instance, jurisdiction the law had to make an election based upon practical considerations by deeming incorporeals to have a location. ... Voet preferred the view that they are located at the domicile of the creditor ... but ... the opinion of \textit{Grotius} ... was that the \textit{situs} of an incorporeal right is where the debtor ... resides. ... Our courts have adopted the view of \textit{Grotius}.'}

It then follows that the 'irrevocability of letters of credit' is not really affected by the attachment of the beneficiary's right to payment and — contrary to the dictum of Schutz J — it therefore does not need to be protected by a refusal to attach. Attachment of beneficiary's rights is not the same as an interdict against bank's performance of its obligations. Incidentally, in the present case, there was 'a lot' to be attached as the \textit{peregrine} beneficiary had at least two rights (\textit{in personam}) to the payment of money situated in South Africa — on the authority of Harms JA and Grotius. The primary right was against the

\textsuperscript{229} \textit{Ex parte} cases are liable to cause problems in adversarial judicial systems, such as in South Africa and common law countries in general. Had this distinction been argued by the defendant or by the representatives of the bank, Schutz J could possibly have been persuaded to use discretion.
issuing bank and the conditional right was against the buyer. It is not clear if a conditional right can be attached before it has been activated — which happens in documentary credits after the failure of the primary intermediated payment process.

In light of the modern acceptance of bank credit as money, one needs to consider whether the beneficiary had a third (possibly real) right in addition to the other two personal rights in South Africa. In casu, the answer must be negative. Yet, the reason can not necessarily be found in the classical statement that, in general banking law, the money in the bank does not belong to the creditor. This was based on tangible money. Great confusion would ensue if any right to payment from a bank of an amount of money would be defined as money — most of these personal rights do not circulate freely in the commerce. As was analysed in section 4 of this Chapter, only the right to unconditional payment from a personal banking account should qualify as (credit-) money. As the German beneficiary was not a client of the credit applicant's bank(s), he had only personal rights to payment of money and none yet over the money itself.

However, it seems, a beneficiary can become a client of the issuing bank and then he may have an ownership right over the money. This ownership of money should, but does not necessarily have to, extinguish the other two rights to payment of money — see further below.

Ownership of credit — personal or real right?

It seems too early to say if law — having accepted bank credit as money — would consider the ownership of this credit as a personal or real right.\textsuperscript{230} It is suggested, however, that the classification into real and personal rights in case of quantities, such as money, is of no great help or importance. Even if ownership of money (in tangible and intangible form) is declared to be \textit{ius in rem}, the impossibility to 'ascertain'\textsuperscript{231} any particular amount of credit and the well established principle of \textit{pecuniae non habent sequelam}\textsuperscript{232} blunt \textit{vindicatory actions} and leave the personal

\textsuperscript{230} Goode (1995), at pp. 492–500, discusses the various personal and real \textit{claims} to intangible money in modern English law.

\textsuperscript{231} In the conventional corporeal sense.

\textsuperscript{232} The writer is not aware of any earlier suggestion of this restricted form of the more general putative principle of \textit{`mobilia non habent sequelam'}.
enrichment actions as the only relevant possibilities for restitution of money. The fact that English law permits, under specific conditions, money (and credit) to be followed and traced, does not obviate the general principle of pecuniae non habent sequelam. General rules are for the general cases.

_**No autonomy of documentary credit in Ex parte Sapan.**_

Although the attachment of the beneficiary's right(s) to payment, without a corresponding anti-dissipatory interdict against the bank(s) and applicant, may not really satisfy the doctrine of effectiveness, it is not necessarily more tortuous than the decision in _Longman Distillers_, where the _incola_ (perhaps by abusing the process of the court) first lost a case with costs payable to the _peregrine_ defendant, whereafter the resulting rights of the _peregrine_ to those costs were attached to found jurisdiction against the same _peregrine_ in the continuation of apparently the same dispute! However, the court in _ex parte Sapan_ had obviously set their mind to dismissing the application entirely.

Streicher J dismissed the appeal (with Schutz J and Heher J concurring) because

'... when the applicant agreed with Finetrade to establish an irrevocable letter of credit, it implicitly agreed that it would not, by an attachment to found or confirm jurisdiction in order to prosecute a counterclaim against Finetrade, prevent the payment of the letter of credit in accordance with its terms.'

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233 Including _condictio indebiti_.

234 These are similar but apparently not identical concepts. Goode (1995), at p. 496, explains: 'Tracing is not a cause of action or a remedy, it is simply a legal technique by which value received by the defendant is shown to be causally linked to value lost by the plaintiff.' And in note 28, he clarifies that it 'is immaterial whether [the defendant] retains [the value]. ... By contrast, a proprietary claim in equity is confined to value surviving in the hands of the defendant.' The south African law seems to be simpler.

235 This is definitely not original, but the writer does not remember the source of this phrase.

236 At 227F, Streicher J at 227H referred to one of Lord Denning's (somewhat puzzling) dicta in _Power Curbet International Ltd v National Bank of Kuwait SAK_ [1981] 3 All ER 607 (CA) at 613c-614a: '[I]t seems to me that the buyer himself by his conduct has precluded himself from asking for an attachment order. By opening the letter of credit in favour of the seller, he has implicitly agreed that he will not raise any set-off or counterclaim — such as to delay or resist payment. He has contracted under the terms of the Uniform Customs and Practice by which he
To this Schutz J added (with Streicher J and Heher J concurring):

'In my opinion the matter goes further than that. It has been argued on behalf of the appellant that the contract between the applicant and the issuing banks was irrelevant. I do not agree. In my view the same term is to be implied in that contract and for the same reasons.'

These *rationes decidendi* clearly and massively violate the practically universal principle of autonomy of the irrevocable documentary credit. If the credit relationship between the issuing bank and the beneficiary depends on implied terms in the other two contracts, then it surely must depend on any express terms that the parties wish to include in these contracts! For example, as there is no reason to suggest that the terms implied by Streicher J and Schutz J are peremptory, the relevant parties are at liberty to expressly exclude these implied terms in one or both of the two relevant contracts of the buyer.

It is of significance that the Appellate Division did not explicitly either reject or approve this view. The statement of Scott AJA in *Loomcraft Fabrics* that the '... contractual obligation on the part of a bank to pay the beneficiary under the credit (the seller) ... is wholly independent of the underlying contract of sale between the buyer and the seller ...' casts strong doubts over the validity of the term implied earlier by Streicher J, but it in no way relates to the term implied by Schutz J. It is suggested that *Ex parte Sapan* may establish an interesting legal foundation for multilateral commercial relationships. There may be future for this model. However, it could lead to much more complex and expensive legal disputes and litigation due to the simultaneous involvement and privity of at least three parties in at least as many contractual relationships.

*Vereins- und Westbank v Veren Investments.*

Another documentary credit related dispute has been brewing for a much longer period of time in the same court (the Witwatersrand Local Division), in which the roles of Stegmann J and Schutz J are partially reversed. In *Vereins- und Westbank AG v Veren Investments* promises that the bank will pay without regard to any set-off or counterclaim; and implicitly that he will not seek an attachment order.'

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237 At 228E.
238 Since 1991.
239 At least six court cases concerning litigation between Vereins- und Westbank AG and Veren Investments are so far directly related to this
The facts were that the advising bank Vereins- und Westbank AG in Hamburg, Germany (VereinsWest) wanted, in simplified terms, to receive the documentary credit related money from the issuing bank Nedcor Bank Ltd (Nedbank). So did a number of other parties or their insolvent estates — it was not yet established which of them was the buyer. The seller, Boli Speditions- und Vermittlungsgeschäfte GmbH (Boli) had already received their money from the advising bank. The party in the middle of this 'storm', Nedbank, did not seem to know what they should do. They apparently created unnecessary confusion by involving the South African Exchange Control authorities, may have made themselves liable to pay the same amount twice (to the advising bank and to the yet to be determined credit applicant), and took no active part in the proceedings of the court below or in the appeal. The following facts, that were established during the appeal, are of relevance for the understanding of the irrevocable documentary credit autonomy in the South African (case) law. Of particular importance is the time-sequence of these facts.

Nedbank issued on 27 February 1991 an irrevocable letter of credit for US $434 782,61, for the importation of two Mercedes Benz 500 SL motor vehicles from Germany, payable to Boli. The credit expressly provided for 'deferred payment 360 days after' the date of the bill of lading in accordance with the UCP 400. 

Early in March 1991, Boli presented to the advising (but not confirming) bank VereinsWest the required documents, among them a forwarder's bill of lading which was apparently issued on the same date as the letter of credit — 27 February
1991. VereinsWest accepted the apparently conforming documents and, on 5 March 1991, sent them to Nedbank.

‘On 6 March 1991, ... VereinsWest were concluding a transaction of their own with Boli in terms of which VereinsWest discounted the amount of the letter of credit, US $434 782.61, and paid Boli US $401 114.13 in return for a cession of Boli's rights, such as they might be, to claim payment from Nedbank of US $434 782.61 on the date of maturity of the letter of credit.’242

Nedbank, who was not at the time informed about this transaction, received the documents on 14 March 1991 and accepted them as conforming.

There was ‘at least a strong prima facie case ... that Boli ... committed a fraud in the transaction. ... Boli's fraud was exposed in November 1991 ... and both Nedbank and VereinsWest were informed of it243 some three months before the payment was due in terms of the letter of credit on 22 February 1992. The evidence of the fraud was by no means uncertain. The fraud had to be regarded as an “established” fraud for the purposes of the exception for established fraud.’244

On 24 January 1992, Nedbank sought guidance of the Exchange Control Department of the South African Reserve Bank about the payment in terms of the letter of credit for goods that had not yet arrived in South Africa. The Reserve Bank instructed Nedbank on 7 February 1992 to pay the funds 'into an account blocked in terms of reg 4(2) of the Exchange Control Regulations’245. Nedbank complied with this instruction and on 24 February 1992 informed VereinsWest that they had 'credited the amount of US $434 782.61 into a blocked account in [VereinsWest's] name being ... in settlement of [Nedbank's] obligation under this letter of credit ...’246 On 28 April 1992, the exchange control authorities withdrew their prohibition against payment to the beneficiary outside the Republic. On 29 April 1992, Nedbank transferred the whole balance (including interest) from the (un-blocked) account of VereinsWest

242 At 256D–G, para 49.
243 At 305E–G, para 150.
244 At 320A.
245 At 288H.
246 At 289H–I.
to a US dollar account styled “Sheriff of the Supreme Court”...”.247 It is not necessary here to refer to later facts that are given in the judgment.

**Fraud exception remains effective until the (deferred) payment date.**

It is submitted that Stegmann J unravelled the above complex case on the following simple basis:

1. Even though the issuing bank’s irrevocable undertaking in terms of the letter of credit becomes binding on the bank upon inspection and acceptance of documents which on their face conform to the requirements of the letter of credit,248

2. the beneficiary does not necessarily have the correlative rights to these obligations. For example, fraud on the part of the beneficiary leads to the beneficiary not having ever had any right to the payment.249

3. However, the issuing bank and any confirming bank are absolved from their respective undertakings in respect of the fraudulent beneficiary only when the fraud is clearly established and brought to the attention of all banks that are obliged or authorised to pay, before any payment has fallen due.250

It then follows _prima facie_ from the facts that Boli had never had any rights to cede to VereinsWest, which in turn did not acquire any rights to payment from Nedbank. Since, furthermore, the fraud was

247 At 294H.

248 Vereins- und Westbank AG v Veren Investments and Others 2000 (4) SA 238 (W), at 318J and 319F. Although this position is in harmony with the dictum of Scott AJA in _Loomcraft Fabrics_ (see the subsection South African position on autonomy of documentary credits above), it clearly contradicts the _lex mercatoria_ as stated by UCP 500. A better view seems to be that the presentment of conforming documents is a suspensive condition (condition precedent) for the bank’s undertaking, which has to be binding from an earlier time-point in order to be of commercial value. (This presentment is one of the beneficiary’s obligations in a different relationship — the contract of sale.)

249 In this respect, Stegmann J relied heavily on the authority of Langley J in _Banco Santander SA v Bayfern Ltd and Others_ [1999] 2 All ER (Comm) 18 (QB).

250 This is different from the simple doctrine that ‘fraud unravels all’. Stegmann J refers approvingly to the following restrictive dictum of Rix J in _Czarnikow-Rionda Sugar Trading Inc v Standard Bank London Ltd and Others_ [1999] 2 Lloyd’s Rep 187 (QB): ‘[F]raud unravels the bank’s obligation to act on the appearance of documents to be in accordance with a credit’s requirements provided that the bank knows in time of the beneficiary’s fraud.’
clearly established some months before the due date of the deferred payment, Nedbank had no obligation to pay under the documentary credit and whatever money transfer or account crediting might have been executed could not be in discharge of a non-existent obligation. Stegman J found then that the crediting of a VereinsWest’s account was a mistake and could be reversed by Nedbank ‘without approaching the Court for an order’.251 It is submitted that this part of the finding must stand apart from the other findings of the Court which relate to payment and its autonomy. The consequences of (unilateral) establishment of various accounts, the associated (unilateral) crediting of these accounts with money and what the mistake (if any) meant, in this case will, be analysed separately further below.

Contract between applicant and bank for the beneficiary.

Assuming that the above is a correct reflection of the judgment of Stegmann J, then the obvious lack of symmetry between the issuing bank’s obligations and beneficiary’s rights suggests very strongly that these rights and obligations are not created by the same simple contract between them.252 Christie states that ‘[a] contract induced by fraud can obviously not be treated as binding on the innocent party’.253 So, what makes the issuing bank’s obligation of payment to the beneficiary survive the disappearance of the beneficiary’s corresponding rights? Again, ius quaesitum tertio between the applicant and the issuing bank can provide the answer. The documentary credit is irrevocable initially without the beneficiary being privy to this undertaking. An honest beneficiary becomes privy to this undertaking after a tacit acceptance. A fraudulent beneficiary never becomes privy. The fate of this documentary credit undertaking is at all times controlled by the contract between the applicant and the issuing bank.

The letter of credit, in this construction, has some striking similarities to the bill of lading. Both are essentially documents that evidence (some aspects of) the underlying contract, both establish privity

251 Vereins- und Westbank AG v Veren Investments and Others 2000 (4) SA 238 (W), at 312E.

252 This is a further (independent) reason, why an attachment of the beneficiary’s right to payment cannot affect an issuing bank’s obligation to pay the beneficiary — see the corresponding submission in relation to ex parte Sapan supra.

of contract between the holder (seller or buyer) and the intermediary (bank or carrier respectively), and both are used to transfer rights to a deserving third party according to the intentions of the contracting parties. Both have some measure of autonomy, but neither are held entirely independent of the contracts they evidence (in South African law).

Clearly, the South African case law does not support the strong autonomy of a documentary letter of credit that is issued on behalf of an applicant. Instead, the bank-beneficiary relationship is based on the consensual intentions found in the contracts that create the documentary credit related obligations for the issuing (and confirming) bank(s) as well as for the beneficiary. The (definite) undertaking of the issuing bank is a contractual obligation by virtue of its contract with the documentary credit applicant. There may, but need not, arise an independent contract directly between the issuing bank and the beneficiary.

It is respectfully submitted that Professor Hugo's construction of the bank's obligation has commercially appealing properties, but it has yet to overcome the dominant authority of the Witwatersrand Local Division. In the meantime, however, the South African case law mandates a different construction. The following seems appropriate:

(i) The issuing of the credit amounts to a contractual undertaking between the applicant and his bank for the benefit of the beneficiary. The credit is irrevocable to the extent that it is so intended and evidenced by the issued letter of credit — by reference to UCP 500 or otherwise.

(ii) An express acceptance of this undertaking by the beneficiary is the exception rather than the rule. The beneficiary manifests his acceptance tacitly by failing to reject or amend the letter of credit.

From the moment of receipt of the letter of credit the beneficiary

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254 For example, Goode (1995), p. 901, accepts as correct that bill of lading establishes 'privity of contract between the holder of the document and the carrier' in English law.

255 Goode (1995) states on p. 902 that 'the property passes when the parties intend it to pass, and they may, of course, agree expressly or by implication that the act which is to produce this result is the transfer of the bill of lading, but it is the contract of sale, not the transfer of the bill of lading as such, which operates to transfer the property.' Similar importance is attached to intention in South African law — see for example Kleyn and Boraine (1992), pp. 248-249.
becomes privy in the documentary credit contractual relationship to the extent that the letter of credit (or its amended version) and the applicable law permit.

(iii) Prior to acceptance of the bank’s undertaking, the bank and applicant may be entitled to revoke the contracted offer only if both agree. However, it is possible that they can be estopped from revoking an irrevocable credit once they cannot hinder the beneficiary receiving the letter of credit which evidences the undertaking.

(iv) The extent of autonomy of the banks payment obligation and its relationship with the beneficiary is defined by the express, tacit and implied terms in the contract between the bank and the applicant (by reference to UCP 500, to lex mercatoria, or otherwise). For example, the bank’s payment obligation may not be automatically extinguished by unilateral actions, or even fraud, of the beneficiary.

Presently, neither this, nor Professor Hugo’s construction, nor the implied terms in ex parte Sapan protect a beneficiary against an application by a party, other than the documentary credit applicant or the related banks, for attachment of the beneficiary’s rights to the documentary credit in a South African court. For reasons given above, it is submitted that this protection is not as necessary as might have been thought, because the banks obligations cannot be attached.

‘Intentionally mistaken’ crediting of a bank account?

Now we are in a position to focus on the effects of what Stegmann J called a mistake when Nedbank credited various accounts that Nedbank itself had created for VereinsWest. This analysis has to be done particularly carefully, because its main consequence of no money transfer to the Vereins- und Westbank AG, as a result of appealing the order of Marais J to the Full Court, was overturned on a further appeal to the Supreme Court of Appeal in a split decision of 4 to 1.

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256 The South African banks never agreed to revoke an irrevocable credit, in the reported cases.

257 Or other rights situated or deemed to be located in South Africa.

258 Made on 1 October 1993 in the case 93/10436.

259 The SCA judgment was obtained from the University of Witwatersrand School of Law website in September 2002.
It is submitted that it is not particularly useful to deal with all individual points of the thoroughly reported arguments and counterarguments of the parties to the dispute and their counsel — this was the task of the about eleven learned judges that have been dealing with this dispute since 1991. Instead, a more general view is taken here.

The reason for the Vereins- und Westbank AG to spend much effort and money on persistent appeals to the successively higher levels of South African legal institutions is clearly the need to obtain the delivery and transfer of unlimited ownership of by now more than half of a million US dollars. In South African law, they had two different general options for achieving this goal. In general,

A. VereinsWest could claim and prove their rights in personam to a payment of a duty to transfer the money from a suitably qualified person, or

B. VereinsWest could claim and prove ownership under the law of property and vindicate or otherwise retrieve the money from whoever held it.

In case of the general option A, VereinsWest needed to have a contractual obligatory link to the potential payer. VereinsWest clearly had no good contractual claim in casu against Nedbank independently of the above analysed documentary credit and there was no other party in South Africa that had any direct obligatory relationship to VereinsWest. Nevertheless, VereinsWest could have bought a contractual claim against Nedbank from the person who had it. Whether they succeeded, had to be and was decided by the Full Court.

In relation to the undisputed issuance of the documentary credit, there were initially two potential obligatory links of relevance. One was

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260 Their pressing need arose from the fact that they had already transferred a similar amount of money to Boli GmbH in Germany, without recourse, in a perhaps not very rational expectation of the documentary credit related payment from the Nedbank.

261 Who, as an agent of Nedbank, had no relationship with Nedbank’s principal. See for example Geva (2001), in relation to the widely held common law position, at pp.103–104, para [18]:

‘Where the agent appoints a subagent, the latter’s responsibility is only to the agent and not to the original principal. There is neither agency relationship between the principal and subagent nor a privity of contract between them. The agent remains responsible to the principal for the due execution of the transaction which he has undertaken, whether he has authority to delegate to a subagent or not.’
between the intended beneficiary, Boli in Germany, and the credit issuer, Nedbank in South Africa. The other was between the beneficiary and the applicant as the conditional payer if the primary payment failed. The latter link was of very doubtful utility to VereinsWest. Since Nedbank was not insolvent, the condition for the secondary payment had arguably not been fulfilled. Even if the insolvency was not the only condition to permit credit short-circuiting, all of the putative applicants had become insolvent.

No right to payment — no duty to pay money.

Although there seemed to be common cause in respect of the fact that the intended beneficiary had received a discounted sum of money from VereinsWest for ceding to VereinsWest what the latter thought were Boli’s rights under the documentary credit, the actual existence of these rights were disputed. Clearly, if these rights existed, VereinsWest would have had a very good obligatory link to Nedbank and a conditional link to the credit applicant. However, on prima facie evidence, Stegmann found that the intended beneficiary never had had any rights to the credit.

Until this finding is overturned or reversed, there can be no doubt that VereinsWest did not, and does not, have any documentary credit related rights to payment of money from South Africa. Did Nedbank and VereinsWest do something in the course of the years of dispute that would seem like creating a contractual obligation for Nedbank to pay the documentary credit related sum of money to VereinsWest? Even if they did, it does not seem to have been argued like that in the courts and, in any case, the other documentary credit related parties would not have had any privity in this presumably purely bilateral relationship. In the law of contract, if there is no right there is no duty. It is just as trite that there is no payment without a preceding duty. Nothing is more clear than this: whatever was done between Nedbank and VereinsWest was not payment in the framework of the described dispute.

Forcing somebody to transfer ownership of money to somebody else without a payment duty is illegal. The Supreme Court of Appeal in the not yet reported case Vereins- und Westbank AG v Veren Investments

262 The above analysis shows this obligation to have been created by the credit application contract for the benefit of the beneficiary. However, other theories too accept the existence of this obligatory link.

263 It is immaterial who the applicant was, for the purposes of this analysis.
and Others 2002 (SCA) seems to have enforced the transfer of the disputed sum of money from Nedbank to VereinsWest on the basis of some payment duty. Five judges of the Supreme Court of Appeal — Nienaber JA, Streicher JA, Cameron JA, Mthiyane JA and Heher AJA — sat in on an appeal from the above analysed appeal decision of the Full Court in the Witwatersrand Local Division. The appellant claimed an order:

1. Declaring that (Nedbank) has discharged its obligations in terms of the letter of credit 862241/08/91.
2. Directing (Nedbank) to reverse the debits which it effected to the applicant's account number 7986-017325 on 29 April 1992.
3. Directing (Nedbank) to pay to the applicant the sum of US $434 782,61 together with such interest as has accrued thereon from 24 February 1992 to date of payment.264

Cameron JA set aside the order of the Full Court (with Streicher JA, Mthiyane JA and Heher AJA concurring) and ordered:

The first respondent265 is directed to pay the applicant the sum of US $ 434 782,61 together with such interest as has accrued thereon from 24 February 1992 to date of payment.266

No ratio is given for this decision and no duty for a payment of money can be found in the judgment of Cameron JA. Cameron JA did not express any view about the existence or lack of documentary credit related duty of payment to the beneficiary, or to the ostensible cessionary VereinsWest. He, it is submitted, correctly decided not to consider the corresponding preliminary decision of Stegmann J, which was based on prima facie evidence.267

'... since the local bank's obligations, and the German bank's entitlements, under the letter of credit are best decided in conjunction with the other matters to be determined at the trial action pending between the parties. What is at issue before this Court therefore is solely the German bank's entitlement, as between it and the local bank, to the money credited to an account in its name in February 1992.'268

264 Reproduced at para 76.
265 In the case 93/10436, this clearly was the Nedcor Bank Ltd — abbreviated as Nedbank in the reported judgment and the present text.
266 At para 27. Emphasis is added.
267 Nor the corresponding decisions of the courts below.
268 At para 10. Emphasis is added.
Nevertheless, Cameron JA constructs his arguments, by which he seems to justify his order, around what he calls the 'debt-discharging transaction'269. But he does not indicate what agreement of minds between the two banks created this debt before the alleged payment. His reference to the authority of Wessels and Pothier does not help because the reproduced citations at para 12, n. 5, referred to undoubtedly existing debts which preceded the payment270. Even if both banks claimed the existence of the payment duty, it is the task of a Court to find the correctness of this claim — if not for anything else than for the fact that this claim was vigorously opposed by the respondents (in the earlier instances). It is true that, in South African law, two parties can voluntarily give each other as much money as it pleases them. This alone does not justify a court calling this transaction 'payment' with the associated notion of legal compulsion. Despite his own advice of leaving this question 'to be determined at the trial action' Cameron JA expressly relied on this presumed consensus between the banks271 to 'find' a debt that had to be settled. But no such debt was shown to exist either before or after the following typical statements:

‘Though the general rule is that the means of payment must be determined by agreement between the payer and payee, it is clear that unilateral conduct on the part of the debtor in purporting to effect payment, if subsequently accepted by the creditor, is effective to discharge the debt.’272

‘At no time before or since then273 has the local bank disputed that it made payment to the German bank or that the German bank was not entitled to accept what it had done as payment.’274

These findings are necessary to establish payment, but they are not sufficient. To summarise, Stegmann J had decided that Nedbank was

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269 See for example paras 12, 24, 25.

270 Payment means performance of a preceding duty. It is a logical absurdity to think that an obligation that arises later would transform some earlier activity into a payment retroactively.

271 At paras 12, 13, 16, 17, 19, 20, and 22-25.

272 At para 12.

273 Conditional order of Goldblatt J in November 1992: 'In the event and to the extent that [Nedbank] has not yet discharged all of its obligations in terms of the letter of credit 862241/08/91 it is hereby interdicted from discharging such obligations pending the final determination of the action [by the South African buyers].' (quoted at para 6 of the judgment of Cameron JA.)

274 At para 19.
mistaken in its initial belief that there was a payment duty. During the proceedings, Nedbank did not express its beliefs and they could not be (cross-) examined. Based on prima facie evidence, Stegmann J found that there clearly was no payment duty. Both he and Cameron JA decided that the final decision about the existence or lack of this duty would be left for the pending trial action. Cameron JA, nevertheless pre-empts the trial court's decision and assumes without discussion the existence of some payment duty in order to overturn the most important effect of the decision of Stegmann J.

The concurring judgment of Streicher JA also fails to distinguish between an unproven (objective) existence of the payment duty and Nedbank's prima facie mistaken subjective belief that it was 'obliged to pay the amount to the appellant'.

'Nedbank considered itself obliged to pay the amount to the appellant and in my view it is clear in the light of that fact coupled with the fact that it advised the appellant on 24 February 1992 that it had credited the amount to an account in the name of the appellant "in settlement of our obligation" that it intended to discharge that debt. ... [N]o affidavit by Nedbank denying that [intention] to be the case has been filed.\[275\]

The Supreme Court of Appeal did not dispute the mistake on the part of Nedbank, nor did it dispute the correctness of the judgment of Stegmann J in relation to the lack of documentary credit related duty to pay. None of the litigants proposed the existence of another causa preceding the claimed payment, nor did the Court mention another preceding causa — there was none.

Nienaber JA, in his dissenting judgment, tried to demonstrate the lack of consensus between Nedbank and VereinsWest during the performance of the ostensible payment duty:

'It requires an animus solvendi of the debtor corresponding to that of the creditor as to a manner, recognised by law, whereby the debtor relinquishes and the creditor acquires access to and control over the funds to be transferred.\[276\]

Nienaber JA did not give any reasons for his assumption that this duty to pay existed, nor did he explicitly reject the thoroughly considered

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\[275\] At para 84.

\[276\] At para 38. This is very well put, but in casu very little turns on it. Before the stage of solutio, consisting of consensual delivery and consensual transfer of ownership, there has to be a preceding obligation waiting for the solutio. This preceding obligation was left to the imagination by all three written judgments.
contrary conclusion by Stegmann J. In this respect there was no difference between Nienaber JA and the majority.

**No mistake in the consensual transfer of money?**

It is submitted, that VereinsWest should have chosen the general option B and claimed *rei vindicatio*, *condictio indebiti*, or some other right relating to the use\(^\text{277}\) of its money, by relying on the abstract transfer of ownership in the South African law of property. This seems to be the only logical attack on the judgment of the Full Court, because Stegmann J did not consider the possibility of finding consensus between Nedbank and VereinsWest regarding a transfer of ownership of the monies that had been transferred into and between the various accounts established by Nedbank for VereinsWest. It does not matter if either or both of them violated any contracts on purpose or by mistake. The transfer of ownership, if proven, does not concern the documentary credit applicants, because Nedbank has *dominium* over its own property which it can alienate in favour of VereinsWest whether the credit applicants like it or not.

Perhaps, this was the intention of the Supreme Court of Appeal? After having argued for the validity of the discharge of an undisclosed debt and after criticising '[t]he Full Court [for having] erred in not concentrating on the issue of payment as between the only parties to that transaction, namely the two banks\(^\text{278}\)', Cameron JA concluded:

>'For the present the German bank's claim to the moneys deposited in its name must, for the reasons I have set out, be *vindicated*.\(^\text{279}\)

Interestingly, almost all arguments of Cameron and Streicher JJA, in support of an ostensible debt discharging payment, would have been good in support of an abstract transfer of money in the South African law of property. The consequences are different though. If there was payment, then it would be difficult, if not impossible, for Nedbank to recover the paid sum of money later. If it was a valid transfer of

\(^{277}\) Transfer of this money to VereinsWest is not one of the relevant rights, but transfer to anybody else is.

\(^{278}\) At para 26. It is submitted that Stegmann J did concentrate on many relevant issues affecting the relationship between the two banks before he found the quite unusual, yet compelling, reasons for the non-existence of the payment duty between them.

\(^{279}\) At para 26. Emphasis is added.
ownership, then Nedbank could try to recover with *condictio indebiti* or other enrichment actions — if it so desires.

**Some mistaken credits (and debits) can be reversed.**

However, there is some appellate authority against accepting the crediting of the accounts of VereinsWest as equivalent to transferring of money to VereinsWest. Stegmann J found this authority in *Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation)* 1998 (1) SA 811 (SCA) at 832B–D, where Zulman JA said:

'Entries on bank accounts may reflect valid juristic acts, but that is not necessarily so. Whilst in general it may be said that entries in a bank's books constitute *prima facie* evidence of the transactions so recorded, this does not mean that in a particular case one is precluded, unless say by *estoppel*, from looking behind such entries to discover what the true state of affairs is. So, for example, if a customer deposits a cheque into its bank account, the bank would upon receiving the deposit pass a credit entry to that customer's account. If it is established that the drawer's signature has been forged it cannot be suggested that the bank would be precluded from reversing the credit entry previously made. So, too, if a customer deposits bank notes into its account the bank would similarly pass a credit entry in respect thereof. If it subsequently transpires that the bank notes were forgeries it can again not be successfully contended that the bank would be precluded from reversing the credit entry.'

Stegmann J did not give very compelling reasons for concluding that Nedbank's (arguably) mistaken unilateral establishment of some of the accounts for VereinsWest and the unilateral crediting of these accounts with substantial sums of money could be reversed, especially after VereinsWest accepted these transfers. The appeal judges in the Supreme Court of Appeal did not comment on the above *dictum* of Zulman JA. Yet the following should be noted.

In the *Oneanate* case, the bank was misled by Oneanate to transfer money from another client's account to the account of Oneanate, by alleging that Oneanate had authority over that other account. When the bank was informed by the true owner of the debited account (Mooi River) that no such authority existed, it had clearly no choice but to rectify its mistake and reverse the debit to Mooi River's account with

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280 In the law of property, it is immaterial whether VereinsWest accepted these sums as results of payment, or as gifts, or whether they knew that they actually had no contractual right to this transfer of ownership.
interest. The more difficult question was related to the associated recovery by the bank from the mistakenly credited account of Oneanate. It is submitted that the bank had not intended to transfer ownership of its own money to Oneanate. If it acted as a conduit between the ostensible transferor and the ostensible transferee then it had no authority to transfer ownership. This does not give the bank vindicatory rights, without a cession from Mooi River. It is suggested that a court could not deny the fact of a successful delivery of money into the account of Oneanate. The possession seems to have passed and Oneanate had some factual control over this money — it could withdraw and transfer these funds at least until the bank discovered its error. However a court could very well deny the transfer of ownership purely on the lack of corresponding intention.

Zulman JA, with unanimous concurrence of the entire Court, took a contractual payment view:

'It was obvious from the conduct of the parties that the credit to the account of Oneanate on 23 May 1988 was conditional upon a recognition of the corresponding debit by Mooi River to its account. The purpose of the debit to the Mooi River account, on the evidence, and the simultaneous credit to the Oneanate account was to effect a payment by Mooi River to Oneanate ... Once such payment was not made by Mooi River because it did not recognise the debit to its account, it could not be said that Mooi River had paid anything to Oneanate ... In these circumstances no question of condictio arises."

'The question whether [the bank] committed an excusable error in crediting Oneanate was not part of the bank’s claim, but arose in reply to the defenses ... If one assumes for a moment that [Oneanate] believed, when he gave the instruction, that Mooi River was indebted to Oneanate and that he was entitled to give the instruction, there can be little doubt that [the bank], acting as he did, did so in the same belief. It is then a clear case of a common assumption which turned out to be false, in which event the status quo has to be restored (Fourie v CDMO Homes (Pty) Ltd 1982 (1) SA 2 (A))."

The VereinsWest case is clearly distinguished by the facts that Nedbank did not object to the ostensible transfer of its own money to its client VerinsWest and never admitted having done anything in error. In the Oneanate case the claimed transfer was not from the bank that

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281 It is of no importance whether the bank considered this to be a payment transaction or simply an abstract transfer of property.

282 At 822G–H.

283 At 823F–H.
clearly wished to rectify its admitted error in attempting to transfer money between two of its clients. It is submitted that Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation) 1998 (1) SA 811 (SCA) is not appropriate authority for the VereinsWest case and the Supreme Court of Appeal possibly ignored it for this reason.

What now?

Now that VereinsWest has finally obtained access to the money that Nedbank had willingly transferred to the account of VereinsWest, one may wonder what happens after the trial court agrees with Stegmann J in respect of the fraud and its effect on the documentary credit related rights and obligations. One of the consequences would be that Nedbank would have to return the credit applicant's original deposit with great amounts of interest after more than ten years and the in duplum rule may or may not limit this interest. Could Nedbank then attempt to recover its loss — and from which party?

Prima facie, Nedbank could have a delictual claim against Boli whose alleged fraud could be argued to have caused, or at least contributed to, the loss. Delictual damages are not the subject of this Chapter, hence we shall consider only remedies that are more closely related to money in the intermediated payments and to the associated transfers. Even though Boli may have been unjustifiably enriched, that money did not come (directly) from Nedbank. There seems to be only one other party — VeriensWest — from which Nedbank could claim reversal of the (valid) transfer of 'US $434 782.61 together with ... interest'. Rei vindicatio is out of the question, because Nedbank is not the owner of this sum.

If VereinsWest did not get any right to that payment from Boli then, despite any moral justification, it can be argued that VereinsWest did not have any legal justification for its enrichment in South African law and Nedbank could institute a condictio indebiti, or perhaps condictio sine causa, against VeriensWest. But Nedbank would have to start proceedings before VerinsWest transfers all of its money out of the South

284 Or, as a consequence of their apparent willingness, on the advice from the South African Reserve Bank.

285 If Stegmann J is found to have been wrong, on further evidence of fact or on questions of law, then nothing much seems possible.
African jurisdiction. It is submitted that the Supreme Court of Appeal — despite its *prima facie* illegal enforcement of a non-existent payment duty — has by implication established that Nedbank transferred the ownership of this sum willingly and that there was consent between the transferor and the transferee. Hence, Nedbank can only claim that their intention and consent were based on an error. Nedbank clearly believed that they had a preceding duty to pay on behalf of their client who had applied for the issuing of a documentary credit and had deposited funds at Nedbank to cover that payment. Was their error excusable? Harms JA gives very useful guidance in *Bowman, De Wet and Du Plessis NNO and Others v Fidelity Bank Ltd* 1997 (2) SA 35 (A), at 44D–45F:

> 'It is a general requirement for the *condictio indebiti* that the error that gave rise to the payment must not have been an inexcusable error, that is inexcusable in the circumstances of the case ([*Willis Faber [Enthoven (Pty) Ltd v Receiver of Revenue and Another* 1992 (4) SA 202 (A)] at 223H–224H). There have been many attempts to lay down rules or formulations in this regard in order to circumscribe what is excusable and what is not (see, for example, McEwan J in [*Barclays Bank International Ltd v African Diamond Exporters (Pty) Ltd* 1977 (1) SA 298 (W) at 305]. Since one is concerned with the exercise of a value judgment, it is seems inappropriate to refine the test of whether judicial exculpation is justified ([*Glück [Ausführliche Erläuterungen des Pandektenrechts*] vol 13 paras 827 and 834).

Roux J, [in the Court a quo], non-suited the plaintiffs on this ground, finding gross negligence and inexcusable slackness on their part. In the light of the view that I take of the matter, it is unnecessary to consider fully the facts relating to the error in making the overpayment, but I wish to say that I believe that the learned Judge's remarks were not justified. The overpayment was, at least in part, induced by the misleading letter from the attorneys and the accompanying threat of a claim for damages. The failure of Van den Heever (the person who had arranged for the payment on behalf of the first plaintiffs) to check the amount claimed in the letter against his records was negligent, but hardly so inexcusable as to be unworthy of protection by the Courts.

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286 This money within the jurisdiction would need to be attached to found jurisdiction in a new action.

287 Illegal in the sense that the Supreme Court of Appeal did not refer to any valid rule of law — statutory, common law, Roman Dutch sources, or previous binding decisions — in support of their enforcement of what they considered to be the discharge of a debt. Nor did the Court claim to have created a new rule of law.

288 One could almost say 'by accident', because the Court was not explicitly concerned with the law of property.
Does the general rule relating to excusability of the error relate to claims such as the present [action to recover an overpayment by way of a condictio indebiti]? Wessels ([Law of Contract in South Africa 2nd ed] para 999) submitted not:

"It seems, however, more reasonable to hold that a person who, like an executor, is acting for the benefit of others, and who in that capacity overpays an heir or legatee under a bona fide mistake as to their legal rights, should not suffer for his mistake."

Booysen J quoted this passage with approval in Rulten [NO v Herald Industries (Pty) Ltd 1982 (3) SA 600 (D)] (at 608B-C). The suggestion seems eminently sensible. ...

I ... hold that the views of Wessels (para 999) ... correctly reflect our law.'

It is respectfully submitted that the above exposition should be just as relevant in all cases of erroneous transfer of property and not merely, as Harms JA seems to indicate by using the words payment and overpayment, in cases where the error relates to the preceding duty to transfer.

289 And by referring explicitly to 'the error that gave rise to the payment' in the beginning of the above quote.
IV Purchasing power

1 Value and purchasing power.

Quantity theory of money (150); Some simple illustrations (151); Real value (154); Money turnover rate and its variation (154).

It is suggested, that the word *value* (without qualification) be used in commercial law\(^1\) for the market value of all exchanged goods and services in respect of a chosen unit (denomination) of money. Value of a particular item is then synonymous to *price*.\(^2\) Values and prices are exchange ratios denominated with respect to a given monetary unit. It is further suggested that the numerical value of a quantity of money is called a sum or amount.

It would not be incorrect to call an amount of money also a (numerical) value, but it can be misleading because of the historically developed usage. It is much less misleading to use *purchasing power* to indicate what is often called the value of money. Strictly speaking, the purchasing power of money is simply the inverse of a price — an exchange ratio of money denominated with respect to a good or a unit of service.\(^3\) Hence purchasing power alone, without explicit reference to the good or service purchased, has no (quantitative) meaning. For example, a motorcar may cost 40000 rands and a cheap racing bicycle may cost at the same time about 8000 rands. Then the purchasing power of the South African monetary unit 1 rand is 25 millionths of a car (25 micro-car, 25 μcar) and 0.125 thousandths of a bicycle (0.125 milli-bicycle, 125 μbicycle).

This is clearly a little unsatisfactory. In general practice, those who speak and write about the purchasing power, do not refer to any

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\(^1\) We are not concerned here with ethical or other non-measurable ‘values’. See also section II 4 above.

\(^2\) But not necessarily to *cost*.

\(^3\) One could use the gross national product (GNP) or similar macroeconomic denominators — see Woelfel (1994) p. 947.
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IV PURCHASING POWER

numerical value. Otherwise they would have noticed how arbitrary it is. On a mystical level, Savigny has equated money to wealth power. This quantitatively meaningless teaching has possibly mislead Hirschberg to state that '[i]f we put all the national assets of a certain State on one side of a balance and on the other side the total amount of means of payment, the result will reflect the [purchasing power] of money'. This is fundamentally wrong. The prices of exchanged goods — and hence the purchasing power — are related to the exchange of assets and not directly to those assets (components of wealth) that are kept or consumed.

Quantity theory of money.

The nature of the purchasing power of money, can be understood already from a crude quantity theory of money. Its first formalised statement has been attributed to the French jurist and philosopher Jean Bodin (1530-1596) who had analysed the influence of the inflow of great quantities of gold and silver into Europe from the Spanish colonies in the sixteenth century. Many economists have refined this theory, but one of the most easily understood derivations is attributed to the American economist Irving Fisher (1867-1947).

Every accounting period (a day, week, month, or year) \( N \) quantities \( q_i, (i = 1, \ldots, N) \) of possibly different goods and services are exchanged for money at their respective unit prices \( p_i \). We exclude barter in the following analysis and we assume that only money is transferred as the secondary durable embodiment of expectations. The total rate of such money changing hands during this transaction periods is given by

\[
m = \sum_{i=1}^{N} p_i q_i
\]

(4.1)

This rate \( m \) (measured in monetary units per time unit, such as dollars per day, or pounds per year) is the value of the goods and services exchanged in the accounting period. This rate is related to the total quantity of money \( M \) available in the economy by a turnover, or frequency coefficient \( v \) (measured per time unit).

\[
m = Mv
\]

(4.2)

Hirschberg (1971), p. 45, where 'value' was used instead of the inserted [purchasing power].

Economists call \( v \) the velocity, which is physically misleading, as velocity indicates how far does something go per unit of time. Money does not go 'far', rather the money stock is used more or less frequently. Further simplification is obtained by using certain averages. Firstly, all transactions that are included in eq. (4.1) are indicated by the letter \( T \). Then the transaction price \( P \) is defined so that

\[
\sum_{i=1}^{N} P_i q_i = PT
\]  

(Eq. 4.3)

Economists measure \( T \) in monetary units at a given date and use \( P \) to indicate the relative price change over time. This practice will be followed later for the analysis of inflation, but not now. Substituting equations (4.2) and (4.3) into eq. (4.1) yields the well-known 'equation of exchange'\(^6\)

\[
Mv = \sum_{i=1}^{N} P_i q_i = PT
\]  

(Eq. 4.4)

Economists are generally interested only in the transactions that relate to final goods and services, hence they replace the total transactions \( T \) with the numerically smaller gross domestic product GDP in equations (4.3) and (4.4). The corresponding turnover rate \( v_{GDP} < v \).

**Some simple illustrations.**

Consider, for example, a rudimentary economy of two classes of people: \( G \) grain farmers and the \( D \) dairy farmers. The grain farmers grow and harvest the grain, mill it into flower and bake every day a quantity of bread for own consumption as well as for exchange against milk products from the dairy farmers. The dairy farmers grow cattle and milk them for own consumption as well as for exchange against bread from the grain farmers. We use three slightly different cases to illustrate the notions of value and purchasing power.

**Case 1:**

The dairy farmers live their life as follows: every morning they milk the cows, take them to the pasture to feed, buy bread for money from the bread farmers in the afternoon, return the cattle to barns in the evening and milk the cows again. The relevant daily routine of the bread farmers is generally as follows: buy fresh milk for money from the dairy farmers in the morning, and bake bread during the day.

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The exchange of primary desirables — milk in the morning and bread in the afternoon — does not coincide. Hence expectations in the form of money are resorted to. Let each grain and dairy farmer consume one litre of milk and one loaf of bread per day respectively. Let there be a fixed quantity of money available — call it \( M \) pesos. If the participants of this economy do not trust this money then they will not keep it for longer than absolutely necessary. Hence, all \( M \) pesos of the \( G \) grain farmers will be exchanged every morning for \( G \) litres of milk. In the afternoon, the same \( M \) pesos will be transferred from the dairy farmers back to the grain farmers for \( D \) loaves of bread. The price of the milk is \( M/G \) pesos per litre and the price of bread is \( M/D \) pesos per loaf. In average, \( G \) litres of milk are exchanged for \( D \) loaves of bread per day, with the help of holding expectations in the form of money for relatively short periods of time.

In this example, the rate of money exchange in eq. (4.1) is \( m = 2M \) pesos per day. From eq. (4.2), \( v = 2 \) times per day. From eq. (4.3), the daily transaction price is \( P = 2M \) pesos per transaction \( T \). Thus the purchasing power of a peso is \( 1/(2M) \) daily transactions per peso and the purchasing power of the total quantity of money in the economy is \( M/(2M) = 1/2 \) daily transactions. Note, that the same amount of money will buy 365 times more bread and milk in a year, because it 'circulates' in the economy. The yearly turn-over rate would be therefore 730. It would be meaningless to conclude that the purchasing power of existing money changed by changing the accounting period.

Case 2:

Let us now assume that both populations grew over time to \( 2G \) and \( 2D \) respectively. Their collective productions and consumption requirements increased proportionately. However the same amount of \( M \) pesos is available to the doubled economy. If the farmers refuse to change the price of a loaf of bread and one litre of milk, then they have the following option to approximately maintain their individual living standards. Before sunrise, all \( M \) pesos of the \( 2D \) dairy farmers will be exchanged for only \( D \) loaves of bread. After milking, all \( M \) pesos will be transferred from the grain farmers back to the dairy farmers for \( G \) litres of milk. In the afternoon, all \( M \) pesos of the dairy farmers will be exchanged for the next \( D \) loaves of bread. In the evening, the same \( M \) pesos will be transferred from the grain farmers back to the dairy farmers for the freshly milked \( G \) litres of milk. The
price of the milk is still $M/G$ pesos per litre and the price of bread is still $M/D$ pesos per loaf. In average, $2G$ litres of milk are exchanged for $2D$ loaves of bread per day, with the help of holding expectations in the form of money for relatively short periods of time.

Now, the rate of money exchange in eq. (4.1) is $m = 4M$ pesos per day. From eq. (4.2), $v = 4$ times per day. From eq. (4.3), the daily transaction price is $P = 4M$ pesos per transaction $T$. Thus the purchasing power of a peso is less than before, $1/(4M)$ daily transactions per peso, and the purchasing power of the total quantity of money in the economy is $M/(4M) = 1/4$ daily transactions. However the purchasing power per good has remained the same as before.

The individual living standard did not change much in respect of the consumed goods, because the money turnover rate $v$ was doubled. Nevertheless, the increased money turnover is associated with greater effort of meeting more often for exchange. This extra effort has no logical justification.

Case 3:

Instead, the farmers can agree to double the amount of all expectations they associated previously with each peso. Hence, all $M$ pesos of the $2G$ grain farmers will be exchanged every morning for $2G$ litres of milk. In the afternoon, the same $M$ pesos will be transferred from the dairy farmers back to the grain farmers for $2D$ loaves of bread. The value (price) of the milk is halved to $M/(2G)$ pesos per litre and the value (price) of bread is halved to $M/(2D)$ pesos per loaf. In average, $2G$ litres of milk are exchanged for $2D$ loaves of bread per day, with the help of holding expectations in the form of money for relatively short periods of time.

Now, the rate of money exchange in eq. (4.1) remains $m = 2M$ pesos per day. From eq. (4.2), $v = 2$ times per day. From eq. (4.3), the daily transaction price is $P = 2M$ pesos per transaction $T$. Thus the purchasing power of a peso is $1/(2M)$ daily transactions per peso and the purchasing power of the total quantity of money in the economy is $M/(2M) = 1/2$ daily transactions. However the purchasing power per good has doubled.
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Real value.

In all three cases, the real value of any one of the traded goods in terms of any other goods did not change. One loaf of bread was worth one litre of milk.

Money turnover rate and its variation.

Economists have found that yearly, or longer, averages of money turnover rate \( v \) in eq. (4.4) vary generally so slowly\(^7\) that most price (and purchasing power) changes are dominated by the available quantity of money \( M \) in relation to the size of the considered transaction \( T \) in the accounting period. In 1981, the United Kingdom's money supply turnover rate was 1.8 per year\(^8\); and in 1994, the South African turnover rate was greater than 1.4 per year\(^9\). In both cases, the purchasing power of the entire money supply has been about a half of the respective country's annual GDP. Contrary to Savigny and his followers, the quantity of money does not represent the quantity of wealth in a country.

In short term, the money turnover rate \( v \) can change very much in specific markets (and even in entire economies) and thus lead to dramatic value changes without change in the quantity \( M \) of money. For this to be possible, there have to be 'discretionary' expectations (money) that are accumulated for exchange in some uncertain future and are not needed for the regular (daily) expenses. Money, in the traditional sense, has no deadline associated with it. This can be demonstrated with slight extension of the above simple example.

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\(^7\) See generally Chapter 4 in Makinen (1977).

\(^8\) Parkin and King (1992), pp. 866-867, where \( v \) is calculated as the ratio of the annual GDP over the M4 supply. M4 includes the government issued legal tender plus various deposits at banks and building societies (see p. 691 in Parkin and King, 1992).

\(^9\) Fourie, Falkena and Kok (1999). On p. 49, the household sector annual expenditure was 317x10^9 rands. On p. 29, the total bank assets are given as 344x10^9 rands. The M3 component is less than the total. Since the household sector was about 65% of the GDP of 1994 (see p. 308 of Black, Hartzemberg and Standish, 1997), the GDP was about (317/0.65)x10^9 = 488x10^9 rands.

I do not have the SARB money supply data for 1994. However, between February and June 2002, the SARB measured M3 to vary between 610x10^9 and 650x10^9 rands (www.reservebank.co.za on 6. VIII 2002) while the issued notes and coins (M0) in circulation varied between 48x10^9 and 50x10^9 rands.
Case 4:

Grain is harvested every autumn during a two-week period and additional workforce needs to be hired for money in order to minimise the bad weather related losses. Assume, that the dairy farmers have agreed to forfeit their leisure time and make themselves collectively available for a fee that they would obtain for selling the two weeks’ production of milk. If the old total milk price is retained ($M$ pesos per day) then this results in a total sum of $14M$ pesos, $13M$ of which do not exist. This problem can be solved in many ways. However, if one does not want to change bread and milk prices seasonally, then the following solution seems to reflect closely what happens in reality.

The price of the daily produced milk is $x$ pesos and the price for the daily produced bread is $y$ pesos. The price for the harvesting help is $14x$. On the last evening of the harvesting period, the grain farmers have to have the largest sum of money in their collective ‘hand’: $14x$ pesos to pay the help and $1x$ pesos for the next morning’s purchase of milk. Since they are not presumed to want to keep any other sums of money and on all other days of the year they only need $1x$ pesos for their daily amount of milk, we find that on the last day of harvesting $15x = M$ would suffice. Hence $x = M/15$ and the constant price of a litre of milk is $M/15G$. The surplus amount of $14x$ pesos needs to be accumulated over the entire year of 365 days. If the production rate of bread and milk is not changed, then the price for bread $y$ must be higher than $x$, so that $365(y-x) = 14x$ pesos. Solving for $y$ yields $y = (379/365)x = 1.038x = 0.0692M$ pesos.

The corresponding daily payment is $x + y = (1+379/365)/15M = 0.1359M$ pesos, except on the last day of harvest when it is $15x + y = 1.0692M$ pesos. The corresponding turnover rates of money are now 0.1359 per day and the about 8 times faster 1.0692 per day respectively. Clearly, the necessary or voluntary accumulation of (discretionary) expectations slows the money turnover rate and makes it variable according to the needs or desires of the holder of these expectations. The average yearly turnover rate is here $364 \times 0.1359 + 1.0692 = 50.5$. This is about 14 times less than the original rate of 730 per year. Much more discretionary expectations need to be accumulated in order to lower the turnover rate to the modern value of somewhere around 1 or 2 per year.
This case requires from the economic actors to behave rationally in the sense that they have to estimate their needs up to a year in advance and agree on the prices accordingly. If, for example, the actual bread price is lower than the calculated $y$ then the grain farmers will not have enough accumulated money to pay the harvesting help. If the bread price is higher than the calculated $y$, then the dairy farmers will not have enough reserves closer to the next harvest to pay for all breads baked for them. In a real economy, the prices and wages are not necessarily easy to modify (they are more or less sticky in at least one direction) and markets do not always clear, because of imperfect foresight. One relatively easy way to clear markets despite the imperfect foresight is to borrow the temporarily missing amount of money from those that have accumulated a surplus of it. Intermediation between borrowers and lenders is one of the profitable banking businesses.

In the above case 4, the change in the daily turnover $v$ was associated with the corresponding change in the total daily transactions — no individual prices changed. In other cases, the (temporary) turnover change can be associated primarily with the price changes. The causality may go either way. More accumulated money may be offered for the same amount of goods and services, which will be noticed by the suppliers and they will then raise the prices as a response. Alternatively, the producers may expect some worsening natural condition and start demanding higher prices for essential consumer goods, as a response to which the consumers will then use their reserves to pay the increased prices.

2 Time value of expectations.

| Investment (157); Nominal return rate on investment (159); Future value (nominal) (159); Mora interest as contractual damages (160); Capitalisation or compounding of interest (164); Protection of debtors through legal limitation of interest (166); Limitation of the in duplum rule (178); Effective annual interest rate (180); Present value (nominal) (181); Some possible effects of saving on money turnover and prices (182); Future value and future purchasing power distinguished (185); Inflation defined (186); Real future value of money (with inflation) (188); Meaning of present value in the presence of inflation (187); Measurement of inflation: price indices (187); Real future value of money (with inflation and taxation) (189); Equivalence between inflation and taxation (189). |
In the previous section, the unit of money was treated as having a purchasing power that did not depend on time explicitly\(^\text{10}\). In reality, there are at least two mechanisms by which time has some direct influence. One is inflation\(^\text{11}\) and the other is potentially profitable use of money.

It has been stated before, that it makes no economic sense to exchange a good for the same good, because the transaction effort would be pure waste. For the same reason, it makes no practical sense to exchange money for the same amount of money. However, it can make very good social sense to lend for example a kilogram of sugar from one’s pantry for a couple of days to a neighbour when she has to bake for the unexpectedly arrived parents-in-law. Economically, it may make sense to exchange the same goods when the transfers of possession do not coincide in time. The intervening period can be used by the first transferee to derive some profit from the possession or ownership. In commercial lending, the borrower will have to pay a price for the economic benefit expected or derived.

**Investment.**

The same applies to money. Keeping a sum \(S\) of money unused (under the proverbial mattress) for a period of time will not change its nominal quantity — \(S\) remains \(S\) after any duration of time. If, for example, \(S\) is kept for the retirement, then it is not needed for the next \(N\) years. From historical experience, it would not be rational to keep the expectation of being able to maintain some reasonable living standard in the form of fiat money\(^\text{12}\) for many years. Instead, one can invest the sum \(S\) in many available tangible and intangible assets which are expected to yield some profit.

For example one can buy a flat for \(S\) and rent it out. After \(N\) years, one can sell the flat for \(S_N\), which generally differs from \(S\). This indirect storage of expectations would be relatively profitable if \(S_N\) plus the

\(^{10}\) The thoroughly considered variation was caused by a practical need for a seasonal service. The other variations that were mentioned, were caused by variation in desires or perceived needs.

\(^{11}\) Its opposite, the negative inflation, is called deflation.

\(^{12}\) This was not necessarily so when money was based on precious metal, or when the economy (GDP) grew predictably faster than the supply of money.
accumulated rentals less the accumulated costs\(^\text{13}\) is greater than \(S\). However, there is always a danger that the final result is less than the invested sum \(S\). Financial experts recommend to people without business expertise to invest their money directly in financial assets that are ‘guaranteed’ to yield a positive yield over the original investment.\(^\text{14}\) Two of the common examples are bonds issued by governments or companies and credit balances in interest bearing bank accounts. The issuers of bonds and banks use the thus obtained (borrowed) money to invest it in either their own or some other business. They do it only because they expect to receive a greater return than the yield they have to pay to the original lender — in order to cover their own costs and some profit. This is the reason why banks have to charge greater interest for a loan to a customer than they pay for a loan from a customer, in case of identical maturity.

From a legal point of view, both financial assets are personal claims to future payment of money and not money itself\(^\text{15}\), the ownership of money is transferred to the issuer of bonds or to the bank respectively.\(^\text{16}\) Bonds and some bank balances are quite liquid in the sense that the associated personal rights to future payment can be traded (at a discount or service fee) before maturity in most financially developed economies, but their value depends on the future existence and solvency of the debtor. Not only financial ignoramuses but also business people invest in bank accounts and bonds for their combination of yield with liquidity.

An example of indirect investment is found in a situation, where a person has to borrow money at a yearly interest of say 15\% in order to buy new machinery for upgrading a profitable business venture. Despite the financial burden of paying the annual interest over and above the duty to return the borrowed money itself, the total wealth of this person is expected to increase continually. If this investment does lead to profit, then there will be (regular) surplus of money flow to the person. At first sight, this person could use the surplus money to buy bonds or to pay

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\(^{13}\) For maintenance, municipal rates, ...  

\(^{14}\) Modern states have made investment in pension funds compulsory by legislation — without any guarantee of profitability.  

\(^{15}\) This is a secondary expectation — an expectation of the payment of an expectation of future primary goods and services.  

\(^{16}\) This was so already in the classical Roman law — see Kaser (1971), p.453 in relation to usufruct.
into an investment account at, say, 10% per annum. This is not necessarily the best option. Depending on the rules and regulations of taxation and banking, the surplus money could be used to reduce the borrowed amount at the much higher effective interest rate. The corresponding calculations are a little complicated for this presentation but the advantage is obvious.

**Nominal return rate on investment.**

Almost all financial markets are very competitive within and in between themselves. That means that returns\(^{17}\) on bonds and bank accounts tend to be similar if the risk and maturity terms are comparable. Ignoring the influence of risk and the slight dependence on maturity, there is usually a general financial market interest rate \(i\) which can be obtained by the financial investor in a year. This rate is seen to vary with time, sometimes quite rapidly\(^{18}\), but customers can have contracts with a bank that stipulate constant interest rates for the duration of the investment. Hence, let us concentrate on the banks, because the bond related calculations are a little more indirect.

The interest rate \(i\) is the fraction of the sum of \(S\) ‘pesos’ that the bank agrees to pay to the client (usually after) each year.\(^{19}\) That means, assuming a fixed interest rate contract, that the client receives \(iS\) pesos each of the \(N\) years\(^{20}\) and the lent \(S\) pesos at the end of the last year number \(N\).

**Future value (nominal).**

Overall, the client pays \(S\) units of money and \(N\) years later will have the future value of \(S\),

\[
F = (1 + Ni)S
\]  

\(^{17}\) One should say 'real returns' — especially when comparing markets and returns in different monetary areas. But this terminology will be explained later.

\(^{18}\) The reasons for the variation include Central (or Reserve) Bank monetary actions, government borrowing, general state of economy, and other.

\(^{19}\) If the contract is for a period less than a year then this fraction is by accounting practice equal to \(i \times \text{days}/365\) in South Africa, England, Australia and some other countries, but in U.S.A. it can be also \(i \times \text{days}/360\).

\(^{20}\) However, it is possible that the contract stipulates payment of the accumulated yearly interest only at the end of \(N\) years.
units of money. This is not the end of the story. However, before continuing, this is a convenient place to have a glimpse on how the South African law protects a person who, based on a contractual promise, should have had a sum $S$ of money, which he could then have invested, but the promisor failed to pay (perform the promised undertaking).

**Mora interest as contractual damages.**

In South African law, breach of a contractual promise in itself does not lead to the debtor being liable for interest. The promisor must be put in *mora.* When a debtor is in *mora* and he has an obligation to pay money then the following crisp summary by Christie (2001) is difficult to improve:

> 'The general damages that flow naturally from the breach will be interest *a tempore morae.* It is not necessary to prove a *protestatio* or the debtor's *culpa,* but it is of course necessary to prove *mora.* Being general damages they need not be specially pleaded and can be recovered either on a claim for interest or a general claim for damages. It was held in *Becker v Stusser* 1910 CPD 289 294 that interest is the only form of damages that can ever be awarded for *mora* in the payment of money, but this overlooks the possibility that special damages may be awarded if properly pleaded and proved. For purposes of prescription the claim for interest has different cause of action from the claim for capital sum.

The *mora* interest rate is governed by the Prescribed Rate of Interest Act 55 of 1975, which came into effect on 16 July 1976, with the object of enabling the rate to be varied when necessary to conform with changing economic conditions without the necessity of leading evidence.

The last point is important in view of the fact that there is no single market interest rate. It varies between monetary areas, financial institutions, in time and it depends materially on the duration of the

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22 *Bellairs v Hodnett* 1978 1 SA 1109 (A) 1145.
23 *Estate Kriessbach v Van Zitterts* 1925 SWA 113.
24 *Koch v Panovka* 1933 NPD 776 781.
26 Proc R 126 of 1976, published in *Gazette* 5215 of 16 July 1976. In the same *Gazette* the rate was fixed at 11 % per annum (Notice R 1217). It has been varied several times since.
(supposedly) intended investment contract. Furthermore, direct financial investment is by no means the only, nor necessarily the most profitable, form of investment. The following statement of the Full Bench in *Bellairs v Hodnett* 1978 1 SA 1109 (A) 1145, at 1147A–C, still seems to be good law:

‘In awarding *mora* interest to a creditor who has not received due payment of monetary debt owed under contract, the Court seeks to place him in the position he would have occupied had due payment been made. The Court acts on the assumption that, had due payment been made, the capital sum would have been productively employed by the creditor during the period of *mora* and the interest consequently represents the damages flowing naturally from the breach of contract. The practice of awarding such interest at the legal rate ... obviates the need to prove in every case what the capital sum would naturally and probably have earned had it thus been productively employed. A party wishing to recover a higher rate of interest would, in the absence of any alteration in this practice, have to establish by way of evidence as to current rates of interest on investment, etc. ... that the loss naturally and probably suffered by him through the non-employment of his capital exceeded the accepted legal rate.’

If the obligation is not directly related to money then it is said that the damages resulting from breach are *unliquidated*. In this case no interest was to be paid before the damages were liquidated, even when the breaching party was in *mora* before liquidation. For example, when the owner of the right to performance could have either sold an object or could have otherwise profited financially from a performed duty and could have consequently invested the resulting sum of money at an interest, but this unliquidated duty is not performed, then clearly there will be *some* damage that can be measured by an interest similarly to the case of liquidated damages. The reasons for this seemingly strange difference between liquidated and unliquidated damages are explained by Corbett CJ in *Standard Chartered Bank of Canada v Nedperm Bank Ltd* 1994 (4) SA 747 (AD) at 777G–779A as follows:

‘Generally, under our common law a debtor is not liable for interest on a monetary debt unless and until he is in *mora*, i.e. in wrongful default in making payment. In the case *Victoria Falls & Transvaal Power Co Ltd v Consolidated Langlaagte Mines Ltd* 1915 AD 1 at 31–3, it

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27 Christie (2001), pp. 591–592. Most of the original footnotes are reproduced here.

28 None of the Appeal Judges took individual responsibility for that judgment.
was held that on a claim for unliquidated damages only ascertainable as to the amount after "a long and intricate investigation", the defendant could not be taken to be in *mora*, and therefore could not be held liable for interest on the damages prior to judgment, since the law did not attribute *mora* to a debtor who did not know and could not ascertain the amount which he had to pay. In the Victoria Falls case Innes CJ nevertheless guarded himself by saying (at 32):

"I do not say that under no circumstances whatever could such damages carry interest. Cases may possibly arise in which though the claim is unliquidated the amount payable might have been ascertainable upon an inquiry which it was reasonable the debtor should have made. Such cases, should they occur, may be left open."

An exception to the general rule that a claim for unliquidated damages does not carry interest is where the parties have fixed by agreement the amount of the claim and thereby rendered it liquidated. *Mora* then commences when the creditor demands payment of the agreed sum or, failing demand, serves summons on the debtor (see *West Rand Estates Ltd v New Zealand Insurance Co Ltd* 1926 AD 173 at 181-3).

The question left open by Innes CJ in the passage from his judgment in the *Victoria Falls* case quoted above, namely whether a creditor can be awarded interest on unliquidated damages from a date prior to judgment where he could reasonably have ascertained the amount payable, remains unanswered as far as this Court is concerned (see *Union Government v Jackson and Others* 1956 (2) SA 398 (A) at 416B-G; *Russell NO and Loveday NO v Collins Submarine Pipelines Africa (Pty) Ltd* 1975 (1) SA 110 (A) at 155B-D; *Adampol (Pty) Ltd v Administrator, Transvaal* 1989 (3) SA 800 (A) at 816F-817C). ...

In argument before us appellant's counsel [Mr Solomon SC] made it clear that this interest was claimed as an item of special damages, distinct from *mora* interest. It was submitted that the time had come for the law to take account of what the counsel termed "commercial realities" and to eliminate the iniquity of the loss sustained by a claimant for damages being deprived of his money prior to final judgment and payment pursuant thereto. Mr Browde's riposte, for which there seems some justification, was to the effect that by delaying action against Nedbank for nearly three years ... Stanchart was part-author of its loss of interest.

Be that as it may, I do not think that there is any basis in a case such as this for an award of interest as special damages. Appellant's counsel were not able to cite any authority in support of this claim and I know of none. ... If

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It is submitted here, that Innes CJ referred only to the defendant not being *in mora* in respect of the interest. The defendant is generally *in mora* in respect of some performance, before a court would begin to consider the monetary price of the corresponding damages.
this conclusion be thought to be contrary to commercial realities and inequitable, then the only remedy is appropriate legislation....'

Only three years later, on 5 April 1997, this legislative remedy was in place. The Prescribed Rate of Interest Act 55 of 1975 was amended to cover unliquidated damages. Howie JA explained in *Adel Builders (Pty) Ltd v Thompson* 2000 (4) SA 1027 (SCA) as follows:

'Before the introduction of s 2A no common-law principle or statutory enactment provided for the award of pre-judgment interest on unliquidated damages; in other words, damages whose quantum had to be fixed by the court. Section 1 of the Act states, *inter alia*, that, if a debt bears interest and the rate of interest is not governed by law, agreement, trade custom or in any other manner, then interest must be calculated at the rate form time to time prescribed in the *Gazette* by the Minister of Justice.\(^\text{30}\)

It seems appropriate to continue with the summary from the headnote:

'Section 2A of the Prescribed Rate of Interest Act 55 of 1975, which is headed “interest on unliquidated debts” and which was introduced on 5 April 1997, provides as follows: “(1) Subject to the provisions of this section the amount of every unliquidated debt as determined by a court of law ... shall bear interest as contemplated in s 1. (2)(a) Subject to any other agreement between the parties the interest contemplated in ss (1) shall run from the date on which payment of the debt is claimed by the service on the debtor of a demand or summons, whichever date is the earlier. ... (5) Notwithstanding the provisions of this Act but subject to any other law or an agreement between the parties, a court of law ... may make such order as appears just in respect of the payment of interest on an unliquidated debt, the rate at which interest shall accrue and the date from which interest shall run.” ...

Section 2A(2)(a) lays down what is to be the general position, namely that interest runs from date of demand or summons. If a plaintiff seeks interest from an earlier time then the Court must be urged to exercise its discretion under ss (5). If a Court resolves to order interest pursuant to ss (5) and not ss (2) there is no need to determine the date of demand. In exercising its discretion under ss (5) it is open to the Court, in fixing the date from which interest is to run, to give effect to its own view of what is just in all the circumstances and no question of *onus* arises. Plainly, if a party wishes certain facts and circumstances to be weighed he must establish them. But there are no *facta probanda*. No enquiry arises as to whether a necessary fact has been successfully proved. Similarly, absence of proof does not result in failure on

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\(^{30}\)At 1031B–C.
any issue. Indeed there are no evidential issues to attract any onus...

In exercising its discretion in terms of s 2A(5) of the Act, a court does not commit a misdirection if it selects as the date from which interest is to run a date which the parties agreed, prior to the trial, to be that upon which the quantum of damages was fixed. ... 31

It seems that even when the debtor was not in some general mora before the court proceedings he enters into mora by the judgment that awards interest. This seems to be what Howie JA meant when stated that 'even when interest runs from the date of judgment it is still mora interest (David Trust [and Others v Aegis Insurance Co Ltd and Others 2000 (3) SA 289 (A)] at 303I).

In any event the demand that is relevant is not the demand for interest but the demand for damages. 32

Capitalisation or compounding of interest.

If the client does not need to exchange the earned interest, iS pesos, each year for some primary goods and services, he can invest these periodical sums of spare money and earn more than without this additional investment. It does not make the least bit of difference if the owner of these iS pesos invests them in the same or another bank. And most importantly, it makes no difference to money as such whether it is called interest or capital or something else. The only thing that matters in an exchange is how many units of expectations does the owner have, or will have, available and what is the purchasing power of a unit of expectation.

Materially equivalently, the investment contract may stipulate up front that the first year's interest iS will be added to S to yield the amount $S + iS = (1 + i)S$ for the second accounting year, the second year's interest $i(1 + i)S$ will be added to the previous balance to yield the amount $(1 + i)^2S$ for the third accounting year, and so on. In this case, the client

31 At 1027E-1028A.
32 At 1034D-E. The reference to the unanimous judgment of Nienaber JA in the David Trust case includes, at 303I-304A this:

‘Prior to 1997 the plaintiffs would have been entitled to claim mora interest only from the date of judgment. ... With effect from 11 April 1997 the Prescribed Rate of Interest Amendment Act 7 of 1997 ... sanctioned inter alia, the recovery of mora interest on amounts awarded by a court which, but for such award, were unliquidated.’

33 Or over any other relevant or suitable period.
pays $S$ units of money and $N$ accounting periods later she will have the future value of $S$,

$$F = (1 + i)^N S$$  \hspace{1cm} (4.6)

units of money. This is called capitalisation of interest or compounding of interest. In banking terminology, $i$ is the simple interest rate in the first case and compound interest rate in the second case. Both are usually quoted in per cent. However, for calculation purposes the decimal fractions will be used here. It is a mathematical fact that $(1 + \bar{i})^N > (1 + \bar{N}i)$ for $N > 1$. Hence the compounding is more profitable for the client when the same rate is quoted.

The concept of compounded interest has had a more complex relationship with law than the simple interest. While interest as such has been maligned mainly on the moral grounds, the compounded version has been often misunderstood. In the words of Smalberger JA in *Davehill (Pty) Ltd and Others v Community Development Board* 1988 (1) SA 290 (A), at 298G-299B:

'Interest on interest (compound interest) could not be claimed in Roman and Roman-Dutch law (Voet *Commentarius ad Pandectas* 22.1.20 and 45.1.11; Van Leeuwen *Het Rooms-Hollands Regt* 4.7.6; Van der Linden *Rechtsgeleerd Practicaal en Koopmans Handboek* 1.15.3). In our modern law this principle has become obsolete, having been abrogated by disuse. (Wessels ([*Law of Contract in South Africa* 2nd ed] at 192 n 107); *Natal Bank v R Kuranda*; *A Kuranda v Natal Bank* 1907 TH 155 at 169-71.) Compound interest may be expressly stipulated for by agreement, is commonplace today in commercial and financial dealings and has been sanctioned by our courts for many years. In principle there appears to be

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34 The year as an accounting period is used here by way of an example and because interest rates are generally, by tradition, quoted in respect of a year.

35 $S$ is the invested capital, in financial terminology.

36 Thus, for example, 15% is 0.15.

37 And on religious grounds. Pre Westfalian positive law did not necessarily differentiate between law and religion. And even today, not all legal systems exclude religion and prohibition of interest.

38 And forbidden as late as 1973 by a South African Court — see below.

39 It is suggested here strongly that one must clearly differentiate between interest and interest rate. Interest is a *sum of money*, entirely independently of whether it was calculated with the simple interest formula (4.5) or with the compound interest formula (4.6).

By definition, interest is the difference between the future and present values, $I = F - S$. From eq. (4.5), $I = (1 + \bar{N}i)S - S = NiS$. Hence the simple interest rate results as $i = I/(NS)$. From eq. (4.6) however, $I = (1 + \bar{N}S - S$. 

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no reason why the right to claim interest on interest should be confined to instances regulated by agreement, and why it should not extend to the right to claim *mora* interest (which is a species of damages) on unpaid interest which is due and payable. To the extent that the decision in *Stroebel v Stroebel* [1973 (2) SA 137 (T) at 139F–H] is in conflict with this broad principle it cannot be supported. The problem which arose in *Stroebel’s* case at 139F would today be dealt with under the provisions of s2 of the Prescribed Rate of Interest Act 55 of 1975.

Subject to what has been said above, it is not necessary in this judgment to attempt to define under what circumstances and within what limits a claim for interest on interest will lie. Suffice it to say that in principle there can be no objection to a claim for *mora* interest on outstanding statutory interest, bearing in mind that statutory interest is, in essence, compensation for loss of possession and fruits.

**Protection of debtors through legal limitation of interest.**

It is not always in the interest of the ruler in a functioning state to punish every wrong with death, enslavement or total impoverishment of the guilty person — *especially if this guilty person was the ruler himself*. This may be so even when the guilty person is a subject of the sovereign and a harsh punishment may seem appropriate to the person who has been wronged by the guilty person. In other words, guilty persons may be protected by the positive law — even against the moral convictions of the innocently wronged person or the majority of the society. A debtor can be protected in a number of ways. Prescription of the debt is one. Loss of the real purchasing power of a nominal sum of money — caused by inflation within a state or by exchange rate depreciation in respect of imported goods and services — is another. However here, the specifically interest-related protection is considered further. Some of the historical background and the current South African position have been thoroughly (but somewhat uncritically) summarised by Joubert JA in *LTA Construction Bpk v Administrateur, Transvaal* 1992 (1) SA 473 (A) at 476E–483A:40

Hence, for an identical investment, interest and investment period, the compound interest rate results as $i = (1 + i/S)^{1/N} - 1$.

40 The quoted sections of this judgement are very interesting but too long to be translated into English in a footnote. A slightly abbreviated translation is reproduced further below from the judgment of Blieden J in *Sanlam Life Insurance Ltd v South African Breweries Ltd* [2000] 1 All SA 563 (W).
Die Romeinse reg

Dit word algemeen aanvaar dat die tydperk van die klassieke Romeinse reg van ongeveer 150 voor Christus tot AD 250 gestrek het. Gedurende hierdie tydperk het die Romeine 'n bloeiende ekonomie met 'n goed ontwikkelde geldwese en geldhandel gehad.

Rente (usurae, faenus, fenus, foenus) was geld wat vir die gebruik van die uitgeleende kapitaalsom (sors of pecuniae creditae) betaal word: pro usu pecuniae creditae. Brissonius (1531–1591) in sy De Verborum Significatione seu Dictionariom Juridicum 1743, sv Usura, noem rente quasi merces et pensio pecuniae. Eintlik is rente fructus civiles wat regtens die opbrengs van uitgeleende geld is (D 6.1.62 pr, Voet 22.1.1). Die rentebetaaler heet usurarius (D 22.1.7).

In die klassieke tyd is verbruikleen (mutuum) aangewend om geldlenings aan te gaan. Daarmee kon egter slegs die uitgeleende kapitaalsom teruggeëis word. Geen rente kon uit hoofde daarvan geëis word nie.

Rente kon slegs geëis word indien dit uitdruklik in 'n stipulatio beding was. In die na-klassieke Romeinse reg het die solemniteits-vereistes verdwyn. Van oudsher is rente deur die owerheid op verskillende maniere beperk weens ekonomiese oorwegings wat darop gerig was om die geldgierigheid van geldskieters in te kort en sodoende 'n mate van beskerming of verligting aan rentebetalers te verleen. Bowendien, met die vestiging van die Christelike Kerk vanaf AD 4 in die Romeinse ryk het dit op godsdienslige gronde 'n verbeterde sryd feit gevoer. Raadpleeg Zimmermann The Law of Obligations – Roman Foundations of the Civilian Tradition (1990) op 166–70. Een van die metodes wat aangewend is, was om van tyd tot tyd die rentekoers te pen. In die klassieke tyd was die rentekoers 12% (usurae centesimae) terwyl Justinianus dit in AD 528 vir gewone mense op 6% (usurae semisses) gestel het. (D 4.32.26.2). Rente wat aan die opgelegte koers voldoen, heet usurae legitimae. (D 22.2.4 pr.) 'n Tweede methode was om die heffing van rente op rente (usurae usurarum) te verbied. (D 12.6.26.1, D 22.1.27, C 4.32.28). Die derde methode was die verbod op rente in duplum waarop ons vervolgens moet ingaan.

Die verbod op usurae in duplum het betrekking op rente wat die kapitaalsom oorsky. Dergelijke rente word in die Corpus Juris Civilis ook usurae supra duplum (D 12.6.26.1), usurae ultra duplum (D 22.2.4.1) of usurae ultra laterum tantum (D 22.1.9 pr) genoem. Die word duplum omvat die uitgeleende kapitaalsom sowel as die rente daarop.

...
TRADING WITH EXPECTATIONS

IW PURCHASING POWER

Wat die klassieke tydperk betref, kry ons in C 4.32.10 'n constitutio van Keiser Antonius AD (212–217), ook bekend onder sy bynaam Caracalla, wat soos volg lui: "Usurae per tempora solutae non proficiunt (reo) ad duplum computationem; tunc enim ultra sortis summam usurae non exiguntur, quotiens tempore solutionis summa usurarum excedit eam computationem."

Hierdie verordening is in ooreenstemming met die Romeinse reg van die klassieke tydperk. Betaalings van rente wat in die verlede gemaak is, kom nie tot voordeel van die rentebetaler by die berekening van die verbod op rente in duplum nie. In die klassieke tydperk is dit die oploop van agterstallige wettige rente wat by die berkening of rente die kapitaalsom oorsky, wat inagt geneem word ten einde die verbod op rente in duplum toepaslik al dan nie te maak.

Onder invloed van die Christelike godsdiens was Justinianus rente geensins goedgesind nie. In AD 529 het hy in C 4.32.27.1 en 2 soos volg verorden:

"§ 1 Cursum insuper usurarum ultra duplum minime procedere concedimus, nec si pignora quaedam pro debito creditoris data sint, quorum occasione quaedam veteres et ultra duplum usuras exigi permittebant.

(Scott se vertaling: "We by no means permit more than double interest to be collected, not even where pledges have been given to the creditor to secure the debt, under which circumstances certain ancient laws authorised more than double the interest to be collected.")"

Hier bevestig Justinianus die renteverbod in duplum en skaf 'n uitsondering daarop, wat in die klassieke tydperk ten opsigte van pandgewing toegelaat is af.

"§ 2 Qud et in bonae fidei iudiciis ceterisque omnibus in quibus usurae exiguntur censemus.

(Scott se vertaling: "We decree that this rule shall be observed in all bonae fidei contracts, and in all other cases in which interest can be collected.")"

Justinianus het in Novellae 121 en 138 by die berekening van die renteverbod in duplum verorden dat gedeeltelike betalings (solutiones per partes) van rente ook in ag geneem moes word. Die effek daarvan was dat 'n kapitaalsom in totaal nie meer rente kon voortbring as die omvang van die kapitaalsom nie. Dit geld vir betaalde sowel as agterstallige rente ...

Die Middeleeuse reg ...

Die uitstaande aspek van die Middeleeuse reg is die feit dat die Kanonieke reg die heffing van rente as 'n doodsonde beskou het en dit op Bybelse gronde verbied het. ... Die Nederlanders het gebruik gemaak van regfigures soos rentekoop (De Groot 3.14.13.–19, ...) en lijfrente (De Groot 3.14.20, ...) wat nie deur die Kanonieke verbod geraak is nie. ...

Duitse juriste
... Interesse is skadevergoeding ...

Carpzovius (1595–1666) Definitiones Forensis 2.30.28 wys op verskeie uitsonderings waar die invordering van rente wat in duplum oorskry, toegestaan word. Een van die uitsonderings het op skadevergoeding (interesse) betrekking.

... Die Romeins-Hollanse reg

In die Romeins-Hollandse reg is alle geoorloofde kontrakte as verbintenisskeppende ooreenkomste afdwingbaar. Vir alle praktiese doeleindes het die onderskeid tussen kontrakte stricti juris en kontrakte bona fidei byna verdwyn sodat alle kontrakte as bona fidei beslou is behalwe vir twee uitsonderinge soos vermeld in Bank of Lisbon and South Africa Ltd v De Ornelas and Another 1988 (3) SA 580 (A) op 601F–J. Rente kan in beginsel in enige geoorloofde kontrak beding word. Groenewegen ad C 4.32.22, Van Leeuwen Censura Forensis 1.4.4.17, Voet 22.1.7 in fine.

Die vraag ontstaan of die renteverbod in duplum opgeneem is in die Romeins-Hollandse reg wat in Provincie Holland en Wes-Friesland gegeld het.

Die mees bekende Hollandse juriste verkondig die resepsie van die renteverbod in duplum soos dit die Romeinse klassieke tydperk bekend was, nl dat die oploop van agterstallige rente (interessen) ophou sodra dit die kapitaalsom oorskry. Novellae 121 en 138 se bepaling oor gedeeltelike betalings is nie opgeneem nie. ...

"It was therefore regarded in our customs as not unfair for the obligation for interest to last until the principal sum had been repaid, even though the interest should overtop three times or four times the amount of the principal sum, provided that it were paid piecemeal."

(Gane se vertaling). So ook Groenewegen ad C 4.32.27 nr 3.

'n Uitsondering op die renteverbod in duplum wat toegelat is, is jaarlikse rente (annuus reditus) uit hoofde van 'n rentekoop (emptio annui reditus) .... Groenewegen ad C 4.32.27 nr 3.

Schorer (1717–1800) het in sy Aanteekeningen op De Groot 3.10.10 noot 29, soos vertaal uit Latyn deur Austen in 1797, 'n minderheidsoopvatting gehuldig, nl dat agterstellige rente wat die kapitaalsom oorskry wel teruggevorder kon word. Met alle respek vir Schorer kan sy afwykende standpunt nie opweeg teen die gesaghebbende standpunt van die mees bekende Hollandse juriste nie.

... Die Friese Wetgewer het egter deur
wetgewing in 1613 die Romeinse reg van die klassieke tyd ingevoer ....

In provinsie Gelderland het die renteverbod in *duplum* nie gegeld nie. Schomaker (1685–1767) Selecta Consilia et Responsa Juris (1738–1765) band 5 cons 6 nrs 15, 16.

In 't kort my gevolgtrekking is die volgende: Na my oordeel is die renteverbod in *duplum* (meer korrek *ultra sortem*), soos dit in die klassieke tydperk van die Romeinse reg ten opsigte van die oploop en invordering van agterstallige rente tot die bedrag van die kapitaalsom gegeld het, wel in die provinsie Holland en Wes-Friesland geresipieer ....

**Ons regspraak**

In die Suid-Afrikaanse regspraak is die renteverbod in *duplum* dat agterstallige rente bo die kapitaalsom nie verhaalbaar is nie in 'n lang reeks gerapporteerde gewysdes toegespas. Hulle het in 1830 begin met *Niekerk v Niekerk* 1 Menz 452 en strek tot *Stroebel v Stroebel* 1973 (2) SA 137 (T). Onder hierdie gewysdes is daar twee volle Hofbeslissings van Transvaal, te wete *Union Government v Jordaan's Executor* 1916 TPD 411 (De Villiers RP, Wessels en Curlewis RR, wat al drie Hoofregters geword het) en *Van Coppenhagen v Van Coppenhagen* 1947 (1) SA 576 (T) (Millin, Malan en Neser RR).

Na my oordeel het die Hof *a quo* tereg bevind dat geen gesag voorhande is wat aantoon dat die renteverbod in *duplum* deeur abrogasie afgeskaf is nie (op 397E). Die onderhawige geval is in die lig van die lang reeks gewysdes te onderskei van di posisie in *Davehill (Pty) Ltd and Others v Community Development Board* 1988 (1) SA 290 (A) op 298G–J waar hierdie Hof bevind het dat die gemeenruiltjie regsreël wat die verhaalbaarheid van saamgestelde rente (*usurae usurarum*) verbied het in die regspraktyk 'n onbruik geraak het en sodoende deur abrogasie afgeskaf is.

Advokaat Burman, namens LTA Construction Bpk, het betoog dat hierdie Hof die renteverbod in *duplum* behoort of te skaf omdat dit 'n anachronisme is wat teen die openbare beleid is deurdat rente nie meer immoreel soos die Middeleeuse Kanonieke reg dit bestem het nie. Hierdie betoog is onaanvaarbaar. Die renteverbod in *duplum* is alles behalwe 'n anachronisme. Dit vorm deel van ons daaglikse ekonomiese lewe. Dit vervul 'n ekonomiese funksie om skuldenaars wat hulle in finansiële verknorsing bevind, te help.42 ...

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42 Even if this is generally true, the learned Judge of Appeal should have been directed by the counsel to distinguish between the metallistic monetary system of the Old Age and the current situation where the quantity of the fiat money is no longer linked to anything material. The difference between predictable purchasing power in the Roman times and completely arbitrary purchasing power of a modern unit of money is too material to be ignored in the context of the 'protection' of the debtor. Or should one say the arbitrary punishment of the *bona fide* creditors during periods of rampant inflation?
Rente is die lewensbloed van die handelsverkeer. Die afskaffing van die renteverbod in duplum is in die huidige omstandighede nie die funksie van hierdie Hof nie. Hierdie Hof het geen bevoegdheid om ’n nuttige, geldende, gemeenregtelike regreël af te skaf nie. Dit is ’n aangeleenthed vir die Wetgewer. Ten spyte daarvan dat die Suid-Afrikaanse Regskommissie reeds in Junie 1974 die afskaffing van die renteverbod in duplum voorgestel het, het die Wetgewer tot op hede dit nie gedoen nie.

Advokaat Burman het ook betoog dat die renteverbod in duplum slegs op geldlenings betrekking het en daarom nie in die onderhawige geval toepaslik is nie. Die partye het met mekaar ’n kontrak vir die totstandbringing van werke deur LTA Construction Bpk teen vergoeding gesluit. In die algemene voorwaardes van die kontrak is daar voorsiening vir rente op die kontrakprys gemaak. Wat hierdie betoog uit die oog verloor en daarom onaanvaarbaar is, is dat die renteverbod in duplum glad nie tot geldlenings beperk nie. In beginsel geld dit vir alle kontrakte uit hoofde waarvan ’n kapitaalsom verskuldig is wat onderhewig aan ’n bepaalde rentekoers is, soos supra aangetoon is.43

Joubert JA did not analyse the meaning of the ‘kapitaalsom verskuldig’ (capital amount due) in the last sentence above. Clearly, the contractual price was not fixed, but calculable according to a formula to which both parties had agreed. It could have been suggested that the court should have looked behind the words of the general conditions and interpreted the interest as a justifiable time-related price escalation formalism. Surely, the defendant could not have any equitable basis for the protection provided by this Court. The defendants had the money and, unless they were inexcusably incompetent, the debtor profited during the mora period from the unpaid price — probably far in excess of what the Court permitted the creditor to recover. With respect, this is not compatible with either socio-economical reasoning or with moral convictions against usury.

Furthermore, it is submitted here, throughout the recorded history the main debtor has been the ruler himself — often combining the monetary and legislative authority. Correspondingly, the so-called protection of the debtor was often meant to protect the selfish rulers at the cost of their economically active subjects.

The ancient law may be a good authority because of its internal logic, but it should not be used uncritically as a source of equity or public policy. Today’s social, economic and other convictions and expectations can be incompatible with those of the Roman and other early periods. For example, Roman law relating to slaves is not part of our law.

43 For a slightly condensed summary of this quote in English see Sanlam Life Insurance Ltd v South African Breweries Ltd [2000] 1 All SA 563 (W). This English summary is reproduced further below.
The Court, in effect, used its sovereign judiciary authority in support of unjustifiably\(^44\) enriching a guilty debtor (an executive branch of the same sovereign authority) at the cost of the innocent creditor (a subject of this sovereign authority)!

The artificial distinction between a nominal sum of money that was owed at one point of time and a sum of money that is owed as a consequence of the first sum has not ceased to bother courts and pain the disputing parties since the \textit{LTA} case above. In \textit{Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation)} 1995 (4) SA 510 (C), at 572A-C, Selikowitz J summarised the law as follows:

'After considering the evidence and weighing the views of the many eminent Judges referred to above, I conclude that there is no basis for saying that the interest debited by a bank to an overdrawn current account and added to the total amount outstanding loses its character as interest and becomes capital or anything else. The debit balance shown in a customer’s bank statement is made up of separate debits, each one of which has its own identity and origin. Some arise from moneys lent and advanced, others from the bank’s service charges or commissions, still others from taxes or even from the sale to the customer of stationery such as cheque or deposit books. The lumping together of all the amounts which are owed to the bank and which remain unpaid does not change their origin or their nature.'

This was approved as correct by the Supreme Court of Appeal in \textit{Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation)} 1998 (1) SA 811 (SCA) at 829B. Selikowitz J continued at 572C-D:

'Words like “capitalisation” are used to describe the method of accounting used in banking practice. However, neither the description nor the practice itself affects the nature of the debit. Interest remains interest and no methods of accounting can change that.'

In \textit{Pfeiffer v First National Bank of SA Ltd} 1998 (3) SA 1018 (SCA), the disputing parties ‘agreed that it [was] standard banking practice to debit interest on overdraft daily and to compound it monthly.’\(^45\) Nienaber

\(^44\) The Court considered why it should not award to the creditor the whole sum of money contractually owed. However, the reported judgment does not contain a single reference to the question of how the debtor had used or invested the amount of money it must have budgeted for the construction contract; how much interest, or other (possibly unliquidated) profit, it had earned on this amount; and why the guilty party should be allowed to keep this profit arising directly from its wrongful actions.

\(^45\) At 1022A.
JA, in one of the two minority judgments at 1023G, accepted the compounding of interest as a legally binding banking custom:

'[I]nterest include[s] (in accordance with banking practice throughout South Africa, implicitly incorporated into the agreement between the bank and [its client]) interest on interest, calculated daily and capitalised monthly. The balance owing by the [client] to the bank from time to time therefore consisted not only of the capital initially advanced by the bank, if any, and of the aggregate of cheques drawn and costs charged against the account, but also of compound interest.'

However, Harms JA, in the majority judgment, went further and left the door open for further judiciary development without necessitating legislative intervention by stating at 1032B that

'[o]ne can conceive of a situation where capitalisation amounts to novation (thereby converting the interest element into capital).'

This is particularly true, if one considers the investor's point of view, whereby she has a right to the payment of a sum of money, calculated as the interest is on the initial amount S. There is no magic meaning in the artificial accounting word 'capital'. The only importance is to be attached to the time point when the ownership of some or another quantity of money is transferred or is due to be transferred — whether as a payment of a duty, in the process of set-off, or otherwise. If is 'pesos' is paid, the investor becomes the owner and can obviously invest this amount of money again at the going interest rate. In the two disputes above, the banks, as investors, were not paid and did not become owners of that amount of money. Nevertheless, it is submitted, their loss is not affected by the choice of the accounting label — capital or interest.

46 But 'a judgment does not in real sense novate the debt (Swadif (Pty) Ltd v Dyke NO 1978 (1) SA 928 (A)].' (Quoted from Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation) 1998 (1) SA 811 (SCA) at 834B.) See also Commercial Bank of Zimbabwe Ltd v MM Builders & Suppliers (Pty) Ltd and others and Three Similar Cases 1997 (2) SA 285 (ZHC) in relation to novation of debts.

47 For example, capital, in general accounting and tax practice on the one hand and in the Articles of the International Monetary Fund on the other, means different things. See Qureshi (1999), p. 142, where he lists financial flows connected with direct investment; portfolio investment; loans; transfers of bank deposits; purchases of life insurance policies; and transfers of personal savings by emigrants' as being included in the general notion of 'capital movements' for the purposes of the IMF Articles.

48 Or damage, if so claimed.
In this respect, the judgment of Blieden J in *Sanlam Life Insurance Ltd v South African Breweries Ltd* [2000] 1 All SA 563 (W) is to be strongly welcomed. The dispute between Sanlam (the applicant) and SAB (the respondent) concerned the transfer of a certain immovable property from the applicant to the respondent and the related amount of money to be transferred from the respondent to the applicant. On 11 May 1978 the applicant and respondent had concluded a written agreement in terms of which, under certain conditions becoming effective within 25 years, 'S.A.B. shall immediately on being notified to do so by SANLAM take transfer of the property concerned against payment to SANLAM' of an amount that was to be calculated as 'capital outlay' plus a sum based on a 10% compound interest rate per annum. The above conditions materialised and, on 9 November 1998, the applicant communicated its decision to require the respondent to take transfer of the property. In a subsequent letter it claimed that the amount due was R28 851 000,00. It was stated that the “capital outlay” ... [was] R3 811 369. These figures [were] not in dispute between the parties.

The respondent contended that the in duplum rule applied and its money payment obligation was therefore limited to R7 622 738,00. Naturally, Blieden J could not ignore the authority of the Appellate Division in the related *LTA Construction* case. He first translated, at 567f-569e, the most important parts of the analysis by Joubert JA into English and then summarised as follows:

**The in duplum rule**

Stated in simple terms the rule is that interest stops running once unpaid interest is equal to the “capital”.

A detailed analysis and discussion of the origin and purpose of the in duplum rule is to be found in the judgment of Joubert JA in the Appellate Division case of *LTA Construction Bpk v Administrateur, Transvaal* 1992 (1) SA 473 (A).

The facts of this case were that the predecessor of the Administrator of the Transvaal (the West Rand Administration Board) had concluded two construction contracts with LTA. Disputes arose between the parties in relation to, inter alia, the applicability of penalties. The

49 The efforts of the Senior Counsel C.M. Eloff may have contributed significantly to Blieden J reaching this judgment.

50 At 565g–h.

51 At 571d–e.

52 At 567e–d.

53 At 567e.
disputes were eventually arbitrated upon. Proceedings were thereafter instituted by LTA against the arbitrator and the provincial administration [sic].\footnote{The proceedings were actually instituted by the Administrator against the other two parties — see \textit{LTA Construction Bpk v Administrateur, Transvaal} 1992 (1) SA 473 (A), at 475D.} In a counter-application, LTA sought enforcement of awards made by the arbitrator for payment of the capital amount and interest thereon. The provincial administrator sought to invoke the in duplum rule in relation to interest claimed by LTA in accordance with the award of the arbitrator. The court \textit{a quo} upheld the administrator’s reliance of the in duplum rule and this was confirmed by the Appellate Division.

In the course of his judgment, Joubert JA, who delivered the judgment of the court, conducted a thorough examination of the Roman law, the Roman-Dutch law and the South African authorities dealing with the in duplum rule.

He pointed out that in the classical period of Roman law (approximately 150 BC to 250 AD) the Romans experienced a flourishing economy with a well developed monetary system (at 476E in the \textit{LTA Construction} judgment (supra)). At 476G-H the learned judge looked at the origins of the concept of interest and the role that it played in the earlier economies. He described the Roman position by pointing out that interest was money paid for the use of the capital sum lent. He indicated that, in truth, interest was \textit{fructus civiles} which constituted the proceeds of the monies lent (D 6.1.62, \textit{Voet} 22.1.1). The person paying interest was called the \textit{usurarius} (D 22.1.7). In this period, interest could only be claimed if it had been expressly included in a \textit{stipulatio}. From time to time, the authorities used various methods to limit the interest which could be claimed because of the greed of the money-lenders, and in this way, a measure of protection or relief was provided to credit receivers (at 477C of the judgment).

One of these methods was to limit the rate at which interest could be charged. A second method was the prohibition of the levying of interest on interest. A third method was the prohibition against interest \textit{in duplum} (at 477D–E of the judgment). The different rules and principles applicable to the prohibition are set out at 477F–478D of the judgment.

The learned Judge of appeal then went on to discuss the influence of Christianity on these principles. Justinian extended the operation and extent of the prohibition. In 529 AD he decreed in C 4.32.27.1 and 2 as follows:

\begin{quote}
*1. We by no means permit more than double interest to be collected, not even where pledges have been given to the creditor to secure the debt, under which circumstances certain ancient laws authorised more than double the interest to be collected.\end{quote}
2. We decree that this rule shall be observed in all *bonae fidei* contracts, and in all other cases in which interest can be collected."

Furthermore, in *Novellae* 121 and 138, Justinian decreed that the prohibition was to be extended to piecemeal payments of interest (*solutiones per partes*), with the effect that the total amount of interest which was paid by a debtor could never exceed the capital sum (at 478H-I).

At 479H-482A of the judgment, Joubert JA turned to a consideration of the question whether the prohibition against *in duplum* interest had been received into the provinces of Holland and West-Friesland. At 480F he pointed out that most of the Dutch jurists had recorded the reception of the interest prohibition *in duplum* as it was held in the Roman classical period, namely that the accrual of arrear interest ceased when the capital sum was exceeded. The provisions of *Novellae* 121 and 138 in relation to partial payments were, however, not received.

At 482B the learned Judge of appeal referred to a long line of South African cases where the prohibition had been applied. He then pointed out that the contention of LTA to the effect that the rule was an anachronism was incorrect. He stated that it formed part of our daily economic life. He said that:

"Dit vervul 'n ekonomiese funksie om skuldenaars wat hulle in finansiële verknorsing bevind, te help" (at 482E–F).

The learned Judge then also disposed of a second contention made by LTA, to the effect that the prohibition only related to moneylending transactions. He pointed out that this contention was incorrect:

"In beginsel geld dit vir alle kontrakte uit hoofde waarvan 'n kapitaalsom verskuldig is wat onderhewig aan 'n bepaalde rentekoers is, soos supra aangetoon is." (at 482J–483A).

In addition to what has now authoritatively been stated as the scope and function of the *in duplum* rule in the LTA *Construction Bpk* case (supra) there are two further cases which are of importance in formulating the scope and nature of this rule. These are *Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation)* 1998 (1) SA 811 (A) and *Commercial Bank of Zimbabwe Ltd v MM Builders & Suppliers (Pty) Ltd and others and Three*

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55 Note that the limitation of the *in duplum* rule to the arrear interest only (which does not seem to have been received into South African law in this restricted form) is later used by Blieden J in his own judgment.

56 Something like: 'It performs an economic function of helping debtors that find themselves in financial difficulties.' As was submitted above, the argument about economic function (as opposed to moral convictions) remains unconvincing.

57 Something like: 'Fundamentally, this holds for all agreements according to which a capital sum is owed and which carries interest according to a specific rate, as was indicated above.'
Similar Cases 1997 (2) SA 285 (ZHC). From a reading of these three judgments the scope and nature of the in duplum rule can be summarised as follows:

(a) The Roman-Dutch law has accepted the rule and it is therefore part of our law. The prohibition created by the rule has resulted in the fact that it is accepted law that no debtor can be required to pay arrear interest on a due debt arising from a loan or in any other way which is in excess of the capital sum due at the time of repayment.

(b) Although there is no rule in common law prescribing the legal rate of interest, the arrear interest which is legally demandable (however the rate per cent) may not exceed the principal sum on which the interest is due. But in this computation will not be reckoned what has already been paid by way of interest (Manfred Nathan The Common Law of South Africa volume 2 at 669 and 808 as quoted in Commercial Bank of Zimbabwe Ltd (supra) at 295).

(c) The purpose of the rule is to ensure that debtors be not endlessly consumed by charges and also to ensure that whose affairs are declining should not be entirely drained dry. For these reasons the rule is based on public policy (Standard Bank of South Africa v Oneanate Investments (supra), Leech and others v Absa Bank Ltd [1997] 3 All SA 308 (A) at 313).

It seems, that now there are three ways to avoid the potentially absurd situation where a guilty debtor is enriched at the cost of an innocent creditor. The court may invoke the (capricious) public policy argument, the legislator may decide to intervene, and the court may deem an interest to be capital.

58 With respect, this reasoning does not seem correct and is contrary to the advice of the Chief Justice Centlivres as approved by Zulman JA in Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation) 1998 (1) SA 811 (SCA) at 834F: 'I am of the opinion that one should not apply all of "the old Roman-Dutch law to modern conditions where finance plays an entirely different rôle" (per Centlivres CJ in Linton v Corser 1952 (3) SA 685 (A) at 695H).'

59 The South African authority on the refined limitation of the in duplum rule to 'arrear' aspect of the interest is not clear to the present writer because of the doubt about the binding effect of the corresponding Roman-Dutch authority. The following statement of Zulman JA in the Oneanate case at 834H may point to an example where an interest is deemed no longer to be in arrears: 'interest on the amount ordered to be paid may accumulate to the extent of that amount, irrespective of whether it contains an interest element.'

60 Which no-one can rely on before it has happened at the highest level.

61 This does not seem imminent.
Limitation of the in duplum rule.

The last is the simple approach that Blieden J took to arrive at an eminently reasonable judgment in the Witwatrsrand Local Division at 571e-572f.

In my view the 10% compound interest referred to in ... the ... agreement [between Sanlam and SAB] is not "interest" in the sense referred to in the in duplum rule ie the price of making money available or the penalty for not paying what is owing on the date payment is due. I agree with Mr Eloff that in the instant case the "interest" factor was agreed upon by the parties in order to fix what the parties considered to be a fair price62 for the asset to be purchased ...

From all the cases quoted and all the authorities referred to in such cases, the in duplum rule is confined to arrear interest and to arrear interest alone. In my judgment the reason for this is plain, it is to protect debtors from having to pay more than double the capital owed by them at the date on which the debt is claimed. It is not to punish investors who are entitled to more than double their investment because the addition of interest to their capital investment would produce such result.

Indeed most owners of single capital annuities and similar investments rely on the situation where the party with whom they have invested their funds, who in this case would be their debtor, is liable to pay to them sums of money frequently in excess of double the initial investment. Such debtors do not require the protection which is afforded the debtor who has the burden of paying arrear interest on money he owes to his creditor.

It could never be public policy to prevent an investor of an amount of money from getting more than double63 his money because he has invested such money over a period of time and has by agreement delayed receiving the fruits of such money in order to achieve the receipt of an increased amount of interest.

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62 The parties cannot plausibly deny having known that, at 10% per year, the nominal amount doubles in every 7.3 years. They had envisaged 25 years for their contract. Hence they rationally anticipated an increase of up to $1.1^{25} = 10.8$ times. Of course no-one expected the real value of the price to increase nearly as much — due to the anticipated inflation.

63 Blieden J clearly refers to the nominal amounts of money and has not considered the 'curse' of inflation which means that the investor practically always gets less purchasing power than the nominal future amount appears to indicate. The future real value may even be less than the invested capital would have purchased at the time of investment.
Counsel's reliance on the *LTA Construction* case and that of *Niekerk v Niekerk 1 Menzies* 452 for the submission that interest does not have to be in arrear for the *in duplum* rule to apply is, in my view, unfounded. The fact that the capital amount in each of these cases had either not been ascertained or agreed to at the date interest started to run does not detract from the fact that the interest claimed was in fact arrear interest. This is wholly different from the present case, where interest was at no time in arrear, but was to be calculated as future interest in the relevant time period involved.

Bearing in mind the commercial and economic exigencies which apply in a modern business world, it seems to me that the effect of the *in duplum* rule should be confined rather than extended. The opprobrium which attaches to moneylending transactions in Roman law and in Roman-Dutch law to large measure no longer applies. In modern commerce the money lender is now normally a bank or similar financial institution whose honesty and integrity is not in question.

... In modern societies, as opposed to the societies which prevailed in ancient and medieval times maximum interest rates are normally controlled by central banks established by the State. In the business world of today the rate of interest charged on any transaction depends on principles of supply and demand rather than the so-called "moral" considerations which applied in times past. It could be argued with some force that the effect of the *in duplum* rule in modern commerce is to provide a legal means for the dishonest debtor to escape his obligations to comply with what he has agreed to pay, rather than to alleviate the plight of overburdened debtors.

**Conclusion**

The *in duplum* rule is not applicable in the present case ...'

This is clearly an economically sensible, principled and ethically neutral judgment. Simultaneously, the *in duplum* rule was assaulted in Zimbabwe by developing the public policy point of view. In *Georgias and Another v Standard Chartered Finance Zimbabwe Ltd* 2000 (1) SA 126 (ZSC), the issue on appeal before the Court was 'whether, as a matter of law, it was possible for a debtor to waive the benefit of the *in duplum* rule in a compromise reached with a creditor'. At 139E–G, Gubbay CJ summarised thus:

"Reverting to the considerations behind the *in duplum* rule, they are correctly summarised and stated to be based on

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64 This is just the beginning. One must also consider the inflation, foreign exchange depreciation and other factors which affect and are affected by the supply and demand related desires of the human beings. See further below.

65 At 131G.
"a policy to protect a debtor who has not serviced his loan from facing an unconscionable claim for accumulated interest and to enforce some fiscal discipline upon a creditor", per Gillespie J in the Commercial Bank of Zimbabwe Ltd v MM Builders & Suppliers (Pvt) Ltd and others and Three Similar Cases 1997 (2) SA 285 (ZHC) case at 465G(ZLR) and 321G(SA). Thus there are two main objectives:

(a) protection of the debtor against exploitation; and

(b) enforcement of a sound fiscal discipline on a creditor.

It follows that a waiver of the in duplum rule in advance cannot be sanctioned, for to do so would defeat these two objectives.

However, a compromise ex post facto involves different considerations. Where there is a dispute about moneys owing and the debtor, knowing that he cannot be forced to pay accrued interest over the double for good cause, agrees to settle his obligations and pay the creditor a sum which includes or embraces such interest, he has put himself outside the purpose of the rule.'

The latest restrictive dictum on the in duplum rule comes from Commissioner, South African Revenue Service v Woulidge 2002 (1) SA 68 (SCA). Froneman AJA, in a unanimous decision, said at 75C–E, para 12:

'It is clear that the in duplum rule can be applied in the real world of commerce and economic activity only where it serves considerations of public policy in the protection of borrowers against exploitation by lenders (LA Construction Bpk v Administrateur, Transval 1992 (1) SA 473 (A) at 482F–G; Standard Bank of South Africa Ltd v Oneanate Investments (Pty) Ltd (in Liquidation) 1998 (1) SA 811 (SCA) at 828D). The present matter is not such a case. The respondent charged no interest on the loan that he advanced to the trust. The result is a gratuitous disposition. I fail to see how that very element of gratuitousness can be said to trigger the working of the in duplum rule.'

Effective annual interest rate.

The compounding is generally executed more often than once every year, but usually not more often than once per day. Nevertheless the banks quote to their clients a so-called nominal annual interest rate $i_n$. If there are $p$ equally long compounding periods per year then, by accounting practice at the end of each period, $i_n/p$ of the previous balance is capitalised. If $S$ is the initially invested balance then after one year, the compounded balance would be according to eq. (4.6) equal to $(1 + i_n/p)^P S$. The so called effective yearly interest rate is therefore
\[ i_{\text{eff}} = \left(1 + \frac{i_n}{p}\right)^p - 1 \] (4.7)

It is a mathematical fact that \( i_{\text{eff}} > i_n \) for \( p > 1 \). In the theoretical limit, when \( p \to \infty \), we get the continuous compounding formula

\[ i_{\text{cont}} = e^{i_n} - 1 \] (4.8)

where \( e (=2.71828...\) is the base of natural logarithm. This is used in some mathematically sophisticated econometric investigations. For example, if the nominal interest is \( i_n = 0.2 = 20\% \) and monthly compounding is used then \( i_{\text{eff}} = 0.21939 \approx 22\% \). With daily compounding, \( i_{\text{eff}} = 0.22134 \approx 22\% \) and \( i_{\text{cont}} = 0.22140 \approx 22\% \). If \( S \) is invested for 7 years at a fixed nominal interest of 10\%, compounded quarterly, then the effective yearly interest is from eq. (4.7) \( i_{\text{eff}} = 0.103813 \) and the future value of this investment is after 7 years, from eq. (4.6) with three decimal digit accuracy, \( F = 2.00 \times S.67 \) In seven years the sum of money doubles at this compound interest rate.

**Present value (nominal).**

The invested sum \( S \) is called the present value of the future amount of \( F \) units of money. It must be noted carefully that the terms 'present value' and 'future value' do not refer to the purchasing power of money\(^{68}\), which may or may not change over the duration of investment. These values depend on the method of investment: they are equal when money is kept unused and compounding yields a greater change than investment with the same simple interest.\(^{69}\) Presently, most multi-year investments (and loans) are contracted with compounding.

\(^{66}\) For proof, add 1 to both sides of eq. (4.7) and take the natural logarithm: \( \ln(1 + i_{\text{eff}}) = p \ln(1 + i_n/p) \). Using the \( \text{I}'\text{Hospital's} \) rule,

\[ \lim_{p \to \infty} \left[\ln(1 + i_{\text{eff}})\right] = \lim_{p \to 0} \left[ \frac{\ln(1 + i_n/p)}{1/p} \right] = \lim_{x \to 0} \left[ \frac{d \ln(1 + x_i)}{dx} \right]. \]

The derivative is \( i_n/(1 + x_i) \) and in the limit \( \ln(1 + i_{\text{eff}}) = i_n \), from where \( 1 + i_{\text{eff}} = e^{i_n} \).

\(^{67}\) An alternative calculation uses the quarterly interest of 0.025 and a total of 28 compounding periods directly in eq. (4.6). The answer is exactly the same, if intermediate calculations are done with sufficient precision.

\(^{68}\) At least not directly.

\(^{69}\) One can always calculate a simple interest \( i_s \) that yields at the end of the contract exactly the same sum of money as a compound interest \( i \). Comparing equations (4.5) and (4.6) yields \( i_s = [(1 + i)^N - 1]/N \).
Thus, if one needs a certain amount $F$ of money after $N$ years, then one can set aside today its (much) smaller present value from eq. (4.6)

$$S = \frac{1}{(1+i)^N} \quad (4.9)$$

The 'setting aside' means investing $S$ with a yearly effective fixed compound interest of $i$ in the financial market. A natural alternative is to set aside regularly (or irregularly) smaller sums of money, which will each add their respective future values up to $F$ over successively diminishing number of compounding periods. The corresponding calculations are more tedious but not more difficult in principle. They become even more tedious when the interest rate is variable over time — computers are programmed to execute these calculations.

The term 'present value' has been legislated into South African law in a limited context by section 1 of the Usury Act 73 of 1968 as follows:

"present value of the book value" means, in relation to a leasing transaction an amount which, if invested on the date of the commencement of such transaction for the duration of the transaction at the annual finance charge rate stipulated in the instrument of debt executed in connection with such transaction, shall equal on the date of expiry of such transaction the book value on such last-mentioned date of the property leased in terms of such transaction.'

The terms 'finance charge' and 'instrument of debt' are defined in the same section 1 of the Usury Act 73 of 1968 — they need not be repeated here. However, the definition of 'book value' in section 1 of the Usury Act 73 of 1968, does need to be repeated: ' "book value" means, in relation to movable property leased in terms of a leasing transaction, the money value of such property at the expiry of the lease, as determined by the lessor at the time of the conclusion of such transaction.'

Some possible effects of saving on money turnover and prices.

If the total transaction rate $T$ and the quantity of money $M$ are constant and if some of the money is withdrawn from current use and accumulated for future use, then the turnover rate $v$ and the prices of goods and services become proportionately smaller (the purchasing power of money increases) in relation to a situation where no money is saved. This is shown as follows. Let an average constant fraction $\zeta_s$ of the
total\textsuperscript{70} $M$ be kept from the payment for the usual amount of transactions $T$, then the reduced amount $(1 - \zeta_s)M$ leads potentially to a different turnover rate $v'$ and a different price level $P$. Hence eq. (4.4) becomes

$$M(1 - \zeta_s)v' = P'T$$

(4.10)

Divide the left-hand side of eq. (3.10) with $Mv$ and the right-hand side by the identical $PT$:

$$\frac{P'}{P} = (1 - \zeta_s)\frac{v'}{v}$$

(3.11)

There seems to be very little justification for the money turnover rate to be different — the accumulation of expectations of future consumption does not change the present exchange effort. Hence it seems that $v' = v$, the turnover rate of the total amount of money is reduced to $(1 - \zeta_s)v$ and the new price is reduced by the same ratio to $P' = (1 - \zeta_s)P$.

It is of interest to understand what happens to the prices and purchasing power of money when the public\textsuperscript{71} keeps its expectations not in the form of money as above, but in investment contracts and uses only the interest for consumption. Although, the rights to payment of money may be exchanged for money between the persons of an economy, they are not necessarily in large quantities exchanged directly for primary goods or services. If we ignore the transactions with secondary expectations themselves, then it seems that the entire quantity of money $M$ should be available for the ‘primary’ transactions denoted by $T$ in eq. (4.3).

A closer look reveals that this is not quite so. Let an average constant fraction $\zeta_1$ of the total\textsuperscript{72} $M$ be borrowed money $(S = \zeta_1M)$ at an effective interest $i$ for the same accounting period as is used in eq. (4.4). This interest payment is an additional transaction, which needs to be added to the right-hand side of eq. (4.4). This can lead to a change in the price level $P$ or turnover rate $v$. Thus, in general

$$Mv' = P'T + i\zeta_1M$$

Or equivalently

$$M(v' - i\zeta_1) = P'T$$

(4.13)

\textsuperscript{70} $\zeta_s < 1$.

\textsuperscript{71} Economists like to talk of households.

\textsuperscript{72} $\zeta_1 > 1$ is possible.
Divide the left-hand side of eq. (4.13) with $Mv$ and the right-hand side by the identical $PT$:

$$\frac{P'}{P} = \frac{v' - i_{s1}'}{v} = \frac{v' - i_{s1}'}{v} \quad (4.14)$$

Here, there is some justification for the money turnover rate to be different, because there is an extra effort for the additional interest payment transaction. If this extra effort is negligible then it would be reasonable to assume that $v' = v$. The turnover rate of the total amount of money with respect to the non-monetary transactions $T$ is then reduced to $(v - i_s')$ in eq. (4.13) and the new price is reduced by the same ratio to $P' = (1 - i_{s1}'/v)P$.

It is not reasonable to assume that an economic system can be sustained with negative prices, hence an equilibrium is only possible when

$$i_{s1}' < v' \quad (4.15)$$

Assume for example, that 80% = 0.8 of all money in circulation has been borrowed within the economy and the long-term money turnover is 0.5 per year, then the upper limit for sustainable interest rate in eq. (4.15) would be $0.5/0.8 = 0.625 = 62.5\%$ per year. Note that $\zeta_i > 1$ is possible, but $\zeta_s$ must be less than one.

Comparing equations (4.11) and (4.14), it is obvious that the two different saving techniques affect prices differently. At small interest rates, the prices are higher with investment than without and it is not immediately clear if the earned interest would compensate for the relatively higher prices. A very approximate answer is found as follows. Let the pensioners live off their saving $\zeta M/2$ in average for $N$ years\textsuperscript{73}. Without investment, their share in the total yearly transaction $T$ is calculated as

$$T_{ret,s} = \frac{\zeta M}{2N(1 - \zeta_s)P} T \quad (4.16)$$

With investment, the pensioners\textsuperscript{74} can use at least the entire interest $i_{s1}M/2$ for consumption. Use of some of the capital is equivalent to an increase of the value of $i$ over the normal market rate in the

\textsuperscript{73} The other half of the savings belongs to those that are still accumulating it for their future retirement.

\textsuperscript{74} and ‘money-rich’ people in general.
following calculations. Then their share in the total yearly transaction $T$ is calculated as

$$T_{\text{ret},i} = \frac{i\zeta_i M}{2(1 - i\zeta_i / v) P} T$$  \hspace{1cm} (4.17)

The ratio of the retirement consumption with investment to that with simple saving is now

$$\frac{T_{\text{ret},i}}{T_{\text{ret},s}} = \frac{i\zeta_i N(1 - \zeta_s)}{\zeta_s (1 - i\zeta_i / v)}$$  \hspace{1cm} (4.18)

If, for example, $\zeta_s = \zeta_i$, then

$$\frac{T_{\text{ret},i}}{T_{\text{ret},s}} = \frac{iN(1 - \zeta)}{(1 - i\zeta_i / v)} \frac{\approx}{i < v < 1} \frac{iN(1 - \zeta)}{\zeta_i}$$  \hspace{1cm} (4.19)

Hence, in this case, investment for retirement is better than simple saving when the interest rate $i$ is greater than $1/[N(1 - \zeta)]$. If a pensioner lives for an average of 10 years and half of the money $M$ is invested (or saved) then the interest rate (including use of capital) should be greater than 20%! With lesser interest rates, it does not necessarily follow that one should not invest. For example, investment tends to make $\zeta_i > \zeta_s$, with the result that proportionately lower interest rates would make the investment relatively profitable. In real economy, an investment can have a positive effect on the productivity of the economy which would lead to an increase in $T$. This is necessary for the borrower to make a profit after paying the interest and the result tends to benefit everybody, including the retirees. But the investment can be wasted as well. This goes beyond the scope of an analysis of money and its relation to law. Another reason for not following this analysis further is the inflation, which adds to the benefits of investment in relation to money under the mattress in any case.

**Future value and future purchasing power distinguished.**

The last analysis should convince the reader of the earlier made statement that the future value of a present sum of money does not necessarily relate to the future purchasing power of this sum of money. The economic efficiency and its development affect the purchasing power too.
Inflation defined.

Some of the most dramatic and apparently surprising changes of the purchasing power of various monetary units were caused by the rampant nominalism of the twentieth century in the form of inflation. Ordinarily, inflation means a general price increase, independently of whether it is caused by the increase of \( M, \) or by a decrease of \( T \) in the equation of exchange. However, the worst cases of inflation in Germany and Hungary before WWII and Israel and some Latin American countries after WWII, seem to have been caused by excessive availability of fiat money.

Let the (annual) rate of price increase be denoted by \( p. \) That means, after a single accounting period from present, all prices are in average increased by \( pP \) to \( P + pP = (1 + p)P. \) At the end of \( N \) accounting periods, with a constant \( p, \) the prices increase to

\[
P_f = (1 + p)^NP
\]

Thus, the increase in the nominal future value of the present sum of money \( S \) in eq. (4.6) is moderated by a loss in purchasing power due to price inflation.

Real future value of money (with inflation).

To differentiate from the economically meaningless nominal future value, the economists define the real future value of the present sum \( S, \) in this case as

\[
F_r = \left( \frac{1 + r}{1 + p} \right)^N S
\]

In the present context, eq. (4.21) determines the future purchasing power of the present sum of money. That means, the real future value \( F_r \) of the present sum \( S \) in eq. (4.21) indicates the sum of money that buys as many desirables presently (or at present prices) as the nominal future value \( F \) from eq. (4.6) is expected to buy in the future. Clearly, it is the real future value that determines future wellbeing and not the nominal future value. A fabulously increased \( F \) means in reality

\[75\] Including the economic substitutes of legal money.
\[76\] \( P = Mu/T. \)
\[77\] And real wealth.
impovery if \( p > i \). The corresponding real interest rate \( i_r \) is a function of the nominal interest rate \( i \) and the inflation rate \( p \):

\[
i_r = \frac{1 + i}{1 + p} - 1 = \frac{i - p}{1 + p}
\]

Contrary to common practice, only for small magnitudes of the inflation rate (\( |p| \ll 1 \)) can eq. (4.22) be approximated by \( i_r = i - p \). As in many of the calculations before, there is great uncertainty in the real value and interest calculations. In many modern financial relationships, the nominal future interest rate \( i \) is uncertain and the inflation rate \( p \) has been definitely very uncertain. Further uncertainty is introduced by the well known fact that the prices of some classes of goods and services change over time very differently from other classes of goods and services. For example the manufactured goods have consistently become cheaper in relation to labour intensive services in modern economies. The prices of some goods\(^{78}\) have even decreased over time in nominal terms — this means deflation with \( p < 0 \).

**Meaning of present value in the presence of inflation.**

It is not without potential importance, in commercial and other disputes, to evaluate the present value of future sums of money. In this case one has to distinguish between the cases when the future sum is actually in the form of money\(^79\) and when the future sum is the present price of some specified goods or services to be purchased or sold in the future. In the first case, the future sum is nominal \( F \) and the present value \( S \) must be calculated from eq. (4.9). In the second case however, either the present prices need to be inflated before using eq. (4.9) or (what means the same) eq. (4.21) can be solved for the present value

\[
S = \left( \frac{1 + p}{1 + i} \right)^N F_r
\]

**Measurement of inflation: price indices.**

Even though the future inflation rate \( p \) is fundamentally uncertain, its expected numerical value is usually based on available historical development of some (annual) price indices \((1 + p)\) from

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\(^{78}\) Various kinds of consumer and household electrical and electronic equipment are good examples in practically all countries.

\(^{79}\) This sum may be the expected inflated future price of some goods or services, a fixed deposit in a bank, expected inheritance, or other nominal sums of money.
governmental or other statistical service providers. The two most commonly used indices are the consumer price index \( CPI \) and the producer price index \( PPI \).

The \( CPI \) is designed to measure only changes in prices for a fixed market basket of goods and services purchased by a selected, representative group of consumers.\(^{80}\) There are well known problems with this index, including the basket becoming unrepresentative over time and many governments deceiving their subjects by subsidising important commodities in the basket.\(^{82}\) The \( CPI \) is usually published in the cumulative percentage form in relation to a fixed basis year, such as 1967 in the U.S.A.\(^{83}\) A \( CPI \) in year number \( Y \) is the product of the annual index \( (1 + p_Y) \) with the \( CPI \) of the previous year number \( Y - 1 \):

\[
CPI_Y = (1 + p_Y)CPI_{Y-1}
\]

(4.24)

Using this equation recursively until the basis year with \( CPI_{base} = 1 \), we obtain the usually published cumulative index over \( N \) years as the product of annual indices:

\[
CPI_N = \prod_{k=1}^{N} (1 + p_k)
\]

(4.25)

where \( N \) and \( k \) indicate the number of years after the base year. Thus \( p_1 \) indicates the price inflation of the 'representative' consumer basket during the first year that follows the base year, \( p_2 \) indicates inflation in the second year and so forth.

The \( PPI \) is designed to measure changes in prices for commodities, materials and finished goods in the primary markets.\(^{84}\) The calculation is based on the same formulas as are used for the \( CPI \). The numerical values are generally different, but not necessarily dramatically so. The consumer or producer inflation rate \( p \) in a year number \( Y \) can be calculated easily from the corresponding published price indices of two successive years, \( P_Y \) and \( P_{Y-1} \) as

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81 The necessary money is obtained by excessive taxation of commodities outside the basket and by other taxation measures which are not reflected directly in the \( CPI \).
TRADING WITH EXPECTATIONS

IV PURCHASING POWER

\[ p_T = \frac{P_{T Y}}{P_{T Y-1}} - 1 = \frac{P_{T Y} - P_{T Y-1}}{P_{T Y-1}} \]  

(4.26)

Real future value of money (with inflation and taxation).

The real future value of a present sum of money is, in reality, further reduced by taxation, which is usually applied to the nominal interest (the 'nominal profit') at an annual rate \( x \). Thus, from the first year's interest \( i S \) the taxed amount \( x i S \) has to be subtracted, which leaves \( (1-x)iS \) to be compounded annually. Assuming constant interest and tax rates, the nominal after tax future value of \( S \) is given by

\[ F = \left( 1 + (1-x)i \right)^N S \]  

(4.27)

and, assuming in addition a constant inflation rate the real after tax future value of \( S \) is given by

\[ F_r = \left( \frac{1 + (1-x)i}{1 + p} \right)^N S \]  

(4.28)

More generally, when the interest, tax and inflation rates change from accounting period to accounting period as \( i_k, x_k \) and \( p_k \) respectively, the real after tax future value of \( S \) after \( N \) accounting periods is given in the product form

\[ F_r = \prod_{k=1}^{N} \frac{1 + (1-x_k)i_k}{1 + p_k} S \]  

(4.29)

When an investment is made in the form of productive capital goods then the authorities generally permit accounting depreciation of the relevant prices paid. This reduces (shields) the effect of the taxation of profits. However, for financial investments depreciation is generally not allowed despite the clearly present and relatively precisely measurable depreciative effect of inflation on the stored expectations.

Equivalence between inflation and taxation.

Equations (4.28) and (4.29) indicate nicely why many (business) people consider inflation as a form of taxation. To the investor\(^{85}\), it makes no material difference, if the future real value is determined by some given taxation rate \( x \) without inflation \((p = 0)\) or there is no explicit

\(^{85}\) From the point of view of the revenue authorities, the calculations may be different. Inflation benefits all (fixed interest) debtors and not only the Receiver of Revenue.
taxation \((x = 0)\) but there is an equivalent inflation rate. The equivalent taxation and inflation rates are determined by

\[
1 + (1 - x) i = \frac{1 + i}{1 + p}
\]

Thus, for example, the inflation rate \(p = (xi)/(1 + (1 - x) i)\) is equivalent to the taxation rate \(x\) and the taxation rate \(x = (1 + 1/i)/(1 + 1/p)\) is equivalent to the inflation rate \(p\) in respect to financial investments. One difference is that it is generally more easy to apply tax rates selectively within the population. However, historically it seems to have been easier for governments to increase inflation instead of taxation.

3 South African constitutional situation.

Money and its foreign exchange aspects have been regulated mostly statutorily in both civil and common law systems. In states with separated governmental powers, the legislative branch has the sovereign supremacy — including the power to delegate some of the legislative powers (revocably) to the executive branch of the government. One can argue that, philosophically (ethically, morally), all three branches of a modern democratically elected government are under the sovereign power of the electorate (state, nation, people), but this does not guard against the possibility that the majority of the electorate is incapable of expertly evaluating monetary regulations, that the majority is often manipulated by some minority, or that the majority is often wrong.

Some steadiness in this fundamentally gullible and fallible system is provided by a well educated and conservative\(^{86}\) judiciary and by a

\(^{86}\) Conservatism is not a virtue in itself. It can frustrate good developments and makes societies miss opportunities, but it can be
constitution that is binding on all three branches of the governmental power, including the legislative branch itself. Even though no modern liberally trading state can insulate its monetary affairs from the rest of the world, the domestic South African legal aspects of monetary regulation are addressed before considering the international regulation. One reason is that this work is written from a significantly South African point of view and South Africa is considered to have presently one of the best domestic constitutional frameworks. The other reason is that there is no sufficiently developed World Government or World Constitution and the (main) subjects of the present international law are states, not the citizens of the states.87

The supremacy of the Constitution and Bill of Rights.

The supremacy of the Act88 No. 108 of 1996: Constitution of the Republic of South Africa, 1996 (the RSA Constitution of 1996, or the Constitution) is expressed in section 1 (emphasis is added):

S. '1 The Republic of South Africa is one, sovereign, democratic state founded on the following values: (a) Human dignity, the achievement of equality and the advancement of human rights and freedoms. (b) Non-racialism and non-sexism. (c) Supremacy of the constitution and the rule of law. (d) Universal adult suffrage, a national common voters roll, regular elections and multi-party system of democratic government, to ensure accountability, responsiveness and openness.'

and again in section 2:

S. '2 This Constitution is the supreme law of the Republic; law or conduct inconsistent with it is invalid, and the obligations imposed by it must be fulfilled.'

One part of the Constitution has been separated out for a somewhat elevated treatment — it is the Bill of Rights that comprises the

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87 This seems to be in a flux. Individual people are being held subject to international humanitarian and criminal law in the recently established International Criminal Court. In monist legal systems, international law is automatically part of the municipal law.

88 This official name has been criticized by van Wyk (1997, p. 379) and tacitly by Botha (1998, p. 38), because this Constitution 'was not adopted by Parliament, but [was] drafted by the Constitutional Assembly and certified by the Constitutional Court.' Hence it appears to be incorrect to refer to it as if it was a parliamentary 'Act 108 of 1996'.
sections 7 to 39, out of a total of 243 sections of the Constitution (excluding the Schedules).

S. '7 (1) This Bill of Rights is a cornerstone of democracy in South Africa. It enshrines the rights of all people in our country and affirms the democratic values of human dignity, equality and freedom.

(2) ...'

Unlike any other statute, the Bill of Rights part of the Constitution is binding not only on the natural and juristic subjects of the state but also on the judicial, executive and even on the legislative branches of the state authority (emphasis is added):

S. '7 (1) ...
(2) The state must respect, protect, promote and fulfil the rights in the Bill of Rights.

(3) ...

S. '8 (1) The Bill of Rights applies to all law, binds the legislature, the executive, the judiciary and all organs of state.

(2) ...

Furthermore:

S. '39 (1) When interpreting the Bill of Rights, a court, tribunal or forum — (a) must promote the values that underlie an open and democratic society based on human dignity, equality and freedom; (b) must consider international law; and (c) may consider foreign law.

(2) When interpreting any legislation, and when developing the common law or customary law, every court, tribunal or forum must promote the spirit, purport and objects of the Bill of Rights.

(3) ...

It seems correct that the Bill of Rights '... cannot be interpreted in the light of the Interpretation Act\(^{89}\) or the Roman Dutch common law or the traditional customary law\(^{90}\) because the Bill of Rights is itself binding on the Interpretation Act, common law and customary law. But it is not clear why Botha\(^{91}\) extended this denial to the entire Constitution.\(^{92}\)

\(^{89}\) 33 of 1957, as amended.


\(^{92}\) It is submitted, that the Interpretation Act should be binding on the rest of the constitution to the extent that the Bill of Rights permits.
Despite the constitutional supremacy, it would be careless and irresponsible to over-emphasise the difference between the Constitution and other statutes. First, both can be amended by the legislative branch of the government, albeit with a somewhat varying degree of difficulty. For an amendment of sections 1 and 74(1) of the Constitution it is necessary to have in ‘the National Assembly ... a supporting vote of at least 75 per cent of its members’93, for an amendment of the Bill of Rights (Chapter 2 of the Constitution) and the rest of the Constitution it is necessary to have in ‘the National Assembly ... a supporting vote of at least two thirds of its members’94, and ‘all [other] questions before the [National] Assembly are decided by a majority of the votes cast’95.

Second, the Bill of Rights, in its present form, permits legislation and common law to override its own provisions (emphasis is added):

S. 36  (1) The rights in the Bill of Rights may be limited only in terms of law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors, including — (a) the nature of the right; (b) the importance of the purpose of the limitation; (c) the nature and extent of the limitation; (d) the relation between the limitation and its purpose; and (e) less restrictive means to achieve the purpose.

(2) Except as provided in subsection (1) or in any other provision of the Constitution, no law may limit any right entrenched in the Bill of Rights.'

Common law is explicitly referred to in S. 8(3)(b): ‘... a court — ... (b) may develop rules of the common law to limit the right, provided that the limitation is in accordance with section 36(1).’ Despite the above poetic subsection 36(2), it should be clear that there is no right that is truly entrenched in the Bill of Rights. It is not of great comfort to find from the travaux préparatoires or by other routes of constitutional interpretation — as Rautenbach96 submits — that ‘[t]he amendment of provisions that give effect to values defined in section 1 by following less stringent procedures than those prescribed in section 74(1) will frustrate the entrenchment of section 1. Amendments of the Bill of Rights which

93 S. 74(1)(a) of the Constitution.
94 S. 74(2)(a) and s. 74(3)(a) of the Constitution.
95 S. 53(1)(c) of the Constitution.
96 Introduction to the Bill of Rights by I.M. Rautenbach in the Bill of Rights Compendium (2000).
The consideration of international law is made peremptory in the Bill of Rights. Its influence is a bit vague but direct with respect to interpretation of the Bill of Rights in S. 39(1)(b) above. Its influence on the interpretation of the rest of the Constitution and other law is also peremptory but indirect — via the spirit, purport and objects of the Bill of Rights in S. 39(2) above. Outside the Bill of Rights, sections 231 to 233 further clarify — and complicate — the relationship between the international and South African municipal laws. In particular (emphasis is added):

S. 231 ... (4) Any international agreement becomes law in the Republic when it is enacted into law by national legislation; but a self-executing provision of an agreement that has been approved by Parliament is law in the Republic unless it is inconsistent with the Constitution or an Act of parliament. ...'
S. '232 Customary\textsuperscript{100} international law is law in the Republic unless it is inconsistent with the Constitution or an Act of parliament.'

S. '233 When interpreting any legislation, every court \textit{must} prefer any reasonable\textsuperscript{101} interpretation of the \textit{legislation} that is consistent with international law over any alternative interpretation that is inconsistent with international law.'

This clearly does not diminish the practical need to incorporate international agreements into the municipal law by legislative enactment — see S. 231(4) above.

\textit{Protection of property as a human right.}

Now we can turn attention to what the RSA Constitution of 1996 prescribes for monetary regulation. Although the Bill of Rights does not deal with money specifically, it contains for the present purposes an important section 25 that deals with property generally (emphasis is added):

S. '25 (1) \textit{No one may be deprived of property} except in terms of law of general application, and no law may permit arbitrary deprivation of property.

(2) property may be expropriated only in terms of law of general application — (a) for public purpose or in the public interest; and (b) subject to \textit{compensation}, the amount of which and the time and manner of payment of which have either been agreed to by those affected or decided or approved by a court.

(3) The \textit{amount of compensation} and the time and manner of payment must be just and equitable, reflecting an equitable balance between the public interest and the interests of those affected, having regard to all relevant circumstances, including — (a) the current use of the property; (b) the history of the acquisition and use of the

\textsuperscript{100} Well known authors (and many lesser mortals) argue about which rules have or have not yet become customary, or are no longer customary, in the international law. The following living authors with international reputations apparently convince different, but sometimes overlapping, groups of people: Alfred P. Rubin (1997), Anthony D'Amato (1971) and John Dugard (2000). There are many others — too many to name without the danger of leaving out somebody very important. Among the most controversial rules of the 'customary international law' are the peremptory norms called \textit{ius cogens}. For example, D'Amato (explicitly in D'Amato, 1991) and Rubin (implicitly) do not accept the existence or legal relevance of \textit{ius cogens} — not necessarily for the same reasons — but Dugard considers \textit{ius cogens} to 'have had a profound effect on international law.' [Dugard (2000), p. 41.]

\textsuperscript{101} Again, despite its peremptory nature, this section is vague. What 'any reasonable interpretation' means is not clear. See also Botha (1998), p. 43.
property; (c) the market value of the property; (d) the extent of direct state investment and subsidy in the acquisition and beneficial capital improvement of the property; and (e) the purpose of the expropriation.

(4) For the purposes of this section — (a) the public interest includes the nation's commitment to land reform, and to reforms to bring about equitable access to all South Africa's natural resources; and (b) property is not limited to land.

(5) to (9) ... [dealing with access to land and redress of past injustices in relation to property] ... 

The Bill of Rights can be regarded as the positive legal expression of what is generally regarded as 'human rights'. Among the arguably more prominent political rights and civil liberties, the individual property rights have been in and out of favour in the popular history of human rights. Roman law attached to property some rights that reached beyond the rights that were attached to persons directly. Property rights were protected in many ways, but the most important remedy for recovery of property was rei vindicatio which is an actio in rem.102 In modern usage, ius in rem is used to denote property rights that are valid potentially 'erga omnes'103 — they extend beyond the ius in personam which are valid only between two, or an appropriately limited number of, persons.

In the view of John Locke (1632–1704), 'all men possess[ed] natural rights to life, liberty and property.'104 As a result of the French Revolution, the National Assembly of France, on 26 August 1789 passed the famous Declaration des droits de l'homme et du citoyen105, which included property among other natural, inalienable and sacred rights of man: 'Property being an inviolable and sacred right, no one can be deprived thereof except in cases of legally established public necessity and on condition of just and prior indemnity.'106 However, this Declaration did not necessarily lead to justiciable legal rights in France and it may be more properly called an expression of ideals107.

103 Against all persons — at least within the applicable jurisdiction. A non-trivial example would be such personal servitude as usufructus. See, for example, Thomas, van der Merwe and Stoop (2000), p. 195.
105 Declaration of the rights of man and the citizen.
107 It seems too pessimistic to call the Declaration as 'meaningless to the majority of the French population of the day' as Thomas, van der Merwe and Stoop (2000, p. 116) have done.
During and after the World War I, the idea of ‘nation’ became fashionable in Europe\textsuperscript{108} and international human rights movement concentrated on the civil and political rights of groups — peoples and national minorities — as opposed to individuals.\textsuperscript{109}

In the socialist states of the 20\textsuperscript{th} century, private property was regarded as something between an anachronism and an evil tool of exploitation of the proletariat. However, the communists were not the first to renounce private property in favour of collective ownership, or no ownership at all. For example, many (ascetic) religious sects and orders did the same throughout the human history.

It is submitted that in South Africa, the Bill of Rights has entrenched — in the sense of S. 36(2)\textsuperscript{110} — the principle of private (and corporate) property as one of the fundamental human rights in a justiciable positive law document.\textsuperscript{111} Money, right to payment of money and right to any other performance\textsuperscript{112} are examples of intangible property and hence — they are protected by the Bill of Rights.\textsuperscript{113}

\textbf{Prohibition of property deprivation?}

The Bill of Rights (section 25) only guards against deprivation of property, but does not go as far as declaring property to be inviolable in

\textsuperscript{108} See Johnson (1992) generally.
\textsuperscript{109} Thomas, van der Merwe and Stoop (2000), p. 118–121.
\textsuperscript{110} See above.
\textsuperscript{111} Interestingly, the drafters of the Bill of Rights have followed the wording of the French Declaration above by making S. 25 self-limiting.
\textsuperscript{112} Contractual, delictual, or other.
\textsuperscript{113} If the monetary expectations are not associated with tangible coins or notes, then there must be some other possibility of their quantification. There has been some academic controversy about the corporeal aspect of things and property. However in South African law, this has been decisively resolved by rejecting the requirement of corporeality — see Kleyn and Boraine (1992) in general.
other ways.\textsuperscript{114} While clearly forbidding the uncompensated taking away\textsuperscript{115} of the ownership of a piece of land or a right to payment, section 25 does not expressly prohibit rendering a piece of residential property practically worthless by industrial development next to the property and it does not expressly require any maintenance of the purchasing power of money. On the other hand, it is useful to remember that the Constitution has not abolished, or diminished the importance of, the (rebuttable) common law presumptions of statutory interpretation. Instead, some have been rendered non-rebuttable by inclusion in the Bill of Rights.\textsuperscript{116} Thus, one could argue — without contradicting the purpose of the Bill of Rights — that existing lesser rights relating to property\textsuperscript{117} are also protected by section 25 as no contrary intention appears expressly\textsuperscript{118} from it.\textsuperscript{119} Nevertheless, it seems that the meaning of 'property deprivation' may need not just interpretation but construction by the courts, as the older common law may no longer be reliable.

The existence and inclusion of the property clause in the Constitution is based on political compromise, mainly between the African National Congress and the National Party\textsuperscript{120} and on the presumed realisation that a lack of compromise would have been worse for both parties. This may explain the lack of clarity, as legal certainty could have made section 25 unacceptable to the supporters of the one or the other side. The nearly irreconcilable debates about section 25 spilled over into the certification hearings. The Constitutional Court\textsuperscript{121} found

\textsuperscript{114} It is not even clear that section 25 protects possession, or the Roman and South African law concept of vacua possessio (see Gibson, 1997, p. 129 for the meaning of the latter term).

\textsuperscript{115} In the sense of expropriation.

\textsuperscript{116} Botha (1998) p. 56.

\textsuperscript{117} Perhaps even a reasonable expectation of real value and the purchasing power of money.

\textsuperscript{118} See generally Botha (1998), p. 68.

\textsuperscript{119} One could also argue that modern developments of human rights have added to and not derogated from the ideals of the French Declaration des droits de l'homme et du citoyen. Thus, the broader concept of the inviolable and sacred property rights may fall into S. 39(1)(a). Even if the inviolability of property is found not to 'underlie an open and democratic society' (S. 39(1)(a)), a court 'must consider [this as part of] international [human rights and other customary] law' (S. 39(1)(b)).

\textsuperscript{120} See Property and the Bill of Rights by P.J. Badenhorst in the Bill of Rights Compendium (about 2001), p. 3FB-5.

\textsuperscript{121} In re Certification of the Constitution of the Republic of South Africa, 1996 1996 4 SA 744 (CC) at 798B-F.
'that international conventions and foreign constitutions have either
adopted a wide variety of formulations of property clauses or contain no
property clause whatsoever'\textsuperscript{122} and it could not find any 'universally
recognised formulation of the right to property'\textsuperscript{123}. Alfred Rubin\textsuperscript{124}
characterises the international situation thus: 'Despite some rhetoric, I
suspect that private property is protected only by municipal law, not by
general international law under any rational interpretation.'\textsuperscript{125} Therefore,
it seems under present circumstances an error to state, as Badenhorst
has done\textsuperscript{126}, that 'international conventions with similar property clauses
\textit{have to} be used in the interpretation of section 25. With some hesitance
it is accepted that 'foreign constitutions \textit{may} be of assistance in the
understanding of our own property clause.'\textsuperscript{127}

Badenhorst has sought to distinguish between the confusing term
‘deprivation’ and the better understood term ‘expropriation’ in his
contribution to the Bill of Rights Compendium\textsuperscript{128}. Apparently, no local
guidance is available. The American (and other) experience of
distinguishing between the ‘non-compensable regulations of property and
compensable expropriations of property’\textsuperscript{129} seems to have been most
compelling. Despite significant differences between the American and
South African legal systems, Badenhorst essentially proposes that
deprivation of property should include ‘regulation ... of the use of
property’\textsuperscript{130}, expropriation of property and ‘(possibly) inverse
expropriation’\textsuperscript{131}. The following definitions are given. “Regulation” of
“property” amounts to the restriction of the exercise of an entitlement or

\textsuperscript{122} Bill of Rights Compendium (2000), p. 3FB-5.
\textsuperscript{123} Bill of Rights Compendium (2000), p. 3FB-8.
\textsuperscript{124} Distinguished Professor of International Law, The Fletcher School of
Law and Diplomacy, Tufts University.
\textsuperscript{125} Personal communication, July 2002, quoted with permission. Justification or deeper analysis of this conclusions is outside the scope of the present study.
\textsuperscript{126} By reading into the Constitutional Court's findings above something that is clearly not there.
\textsuperscript{127} Bill of Rights Compendium (2000), p. 3FB-6. Emphasis is added.
\textsuperscript{128} (2000), Property and the Bill of Rights, pp. 3FB-1 to 3FB-68.
\textsuperscript{129} Bill of Rights Compendium (2000), p. 3FB-15. Emphasis is original.
\textsuperscript{131} Bill of Rights Compendium (2000), p. 3FB-63.
entitlements by the holder of a public or private law patrimonial right. "Expropriation" of "property" amounts to the (original) acquisition of a public or private law patrimonial right without the consent of the holder thereof. "Inverse expropriation" of "property" amounts to the regulation of property to such an extent that the exercise of the remainder of the entitlements by virtue of a public or private right becomes meaningless.¹³²

This proposition seems reasonable, but still needs the authority of a court or legislative act for binding effect in positive law. Other reasonable constructions are possible. For example, one can criticise the above construction of deprivation because of its closeness to the American legal usage. This would lead by implication or analogy to the conclusion that a non-expropriating deprivation of property (or possession) need not be compensated. However, there is no indication in the Bill of Rights that this conclusion would in any way advance "human [dignity,] rights and freedoms"¹³³. In fact, it is not even clear if the Bill of Rights intended to permit any uncompensated deprivation at all — there certainly is no such express permission.

Money in the Constitution.

Money receives very special treatment outside the Bill of Rights in the rest of the RSA Constitution of 1996, which states that 'the National Assembly may ... initiate or prepare [any] legislation, except money Bills¹³⁴ ... only the Cabinet member responsible for national financial matters may introduce a money Bill in the Assembly¹³⁵.' Not even the declaration of a state of emergency¹³⁶ is so special. Money Bill is defined as (emphasis is added):

S. 77 (1) A Bill that appropriates money or imposes taxes, levies or duties is a money Bill. A money Bill may not deal with any other matter except a subordinate matter incidental to the appropriation of money or the imposition of taxes, levies or duties.

(2) All money Bills must be considered in accordance with the procedure established by section 75. An Act of Parliament must provide for a procedure to amend money Bills before Parliament.'

¹³² Bill of Rights Compendium (2000), p. 3FB-64, notes 1, 2 and 3.
¹³³ Section 1(a) of the RSA Constitution, 1996.
¹³⁴ Section 55(1), emphasis is added.
¹³⁵ Section 73(2).
¹³⁶ Section 37.
Thus, imposition of taxes is anchored in the Constitution. This is necessary in order to overcome the prohibition of expropriation without compensation in section 25(2).\textsuperscript{137} It is trite that taxation is significantly used by governments for involuntary transfer of purchasing power from some members of a state to other members without compensation. At least this part, if not the entire concept of taxation violates section 25 of the Bill of Rights and it would be unconstitutional if it was imposed merely by ordinary legislation. Sub-section 36(1) explains how a basic right may be limited, but it does not permit alteration of the manner in which the limitation is carried out. However, sub-section 36(2) instructs us to look in the entire constitution for provisions that permit limitation of 'any right entrenched in the Bill of Rights'. It is submitted that sections 55, 73 and 77 read together make it in a round-about way possible to have tax related legislation, which is constitutional despite violating prohibition of \textit{uncompensated} expropriation in section 25.\textsuperscript{138} It seems that section 25 can be rendered completely meaningless in an entirely constitutional manner. For example, any form of capital tax (such as capital gains tax combined with inflation) is a gradual form of expropriation and leads exponentially in time to complete elimination of this property. See eq. (4.30) for the equivalent taxation and inflation rates.

\textit{Limited sovereignty of the legislative branch in relation to money.}

The RSA Constitution of 1996 has severely limited the sovereignty of the legislative branch of government, in favour of the executive branch, in respect of fiscal matters. Of all legislative activity, the regulation of

\textsuperscript{137} Although Badenhorst proposes that '[t]axation ... should be seen as a separate category from "expropriation" or "deprivation" of property' [Bill of Rights Compendium (2000), p. 3FB-29], he concedes that 'Van der Walt and Pienaar \textit{Law of Property} 110 ... regard taxation as an interference by the government in the patrimonial rights of an individual.' [Bill of Rights Compendium (2000), p. 3FB-31, note 10]

\textsuperscript{138} For example, the European Convention for the Protection of Human Rights and Fundamental Freedoms has taken a more direct approach to making taxation compatible with personal rights to property. Article 1 of its First Protocol states: 'Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law. The preceding provision shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to ... secure the payment of taxes ...'. [See also the Bill of Rights Compendium (2000), p. 3FB-25.]
taxes and money appropriation can not be initiated by the Parliament. It is true that the Parliament has the power to pass or reject a money Bill. But once a money Bill has passed into law it cannot be abolished (or amended?) without the executive branch initiating the necessary legislative activity — never mind how much the Parliament dislikes or regrets the status quo. The dis-empowerment of Parliament goes presently further: the executive branch may suspend much of existing money related legislation without even consulting the Parliament.\textsuperscript{139}

The financial affairs of the Republic of South Africa are regulated by Chapter 13 of the Constitution, comprising of sections 213 to 230. The state’s accounting must be consolidated on the basis of a single National Revenue Fund (emphasis is added):

S. 213 (1) There is a National Revenue Fund into which all money received by the national government must be paid, except money reasonably excluded by an Act of Parliament.

(2) Money may be withdrawn from the National Revenue Fund only — (a) in terms of an appropriation by an Act of Parliament; or (b) as a direct charge against the National Revenue Fund, when it is provided for in the Constitution or an Act of Parliament.

(3) A province’s equitable share of revenue raised nationally is a direct charge against the National Revenue Fund.\textsuperscript{140}

The Government has at the South African Reserve Bank ‘a Gold Price Adjustment Account’\textsuperscript{141}, ‘a Foreign Exchange Adjustment Account’\textsuperscript{142}, and ‘a Forward Exchange Contracts Adjustment Account’\textsuperscript{143}.

\textsuperscript{139} The Currency and Exchanges Act 9 of 1933 (last amended in 1996) states in section 9(3) that the State President ‘... may, by any such regulations, suspend in whole or in part this Act or any other Act of Parliament or any other law relating to or affecting or having any bearing upon currency, banking or exchanges, and any such Act or law which is in conflict or inconsistent with any such regulation shall be deemed to be suspended in so far as it is in conflict or inconsistent with any such regulation.’ Emphasis is added. Based on the ‘delegation doctrine’ and separation of government powers, one could argue that this provision goes further than the Constitution permits and is therefore unconstitutional (Executive Council, Western Cape Legislature v President of the Republic of South Africa 1995 (4) SA 877 (CC)). However it may just as well be upheld by the Constitutional Court because the delegation doctrine should not be applied retroactively (Yniuco v Minister of Trade and Industry 1996 (3) SA 989 (CC)). See Devenish (2001), pp. 80–81.

\textsuperscript{140} Section 226 prescribes Provincial Revenue Funds along the same lines.

\textsuperscript{141} Section 25 of the South African Reserve Bank Act 90 of 1989.

\textsuperscript{142} Section 26 of the South African Reserve Bank Act 90 of 1989.
The corresponding amounts are for the profit or loss of the Government. Section 28 of the South African Reserve Bank Act 90 of 1989 establishes a certain discretionary Contingency Reserve Account alongside the National Revenue Fund: ‘Any credit or debit balance[s on the above Adjustment Accounts] ... shall, at the close of each financial year of the [Reserve] Bank or at such other times as the Bank and the Treasury may determine, be transferred to a Gold and Foreign Exchange Contingency Reserve Account established and managed by the [Reserve] Bank on behalf of the Treasury.’144 Even though the profits and losses on the Gold and Foreign Exchange Contingency Reserve Account may be credited or charged to the ‘State Revenue Fund’145, the time point of doing so is at the Government’s discretion.146 Furthermore, the Reserve Bank may, at the request of or with the approval of the Treasury, advance any credit balance, or part thereof, on the Gold and Foreign Exchange Contingency Reserve Account to the National Supplies Procurement Fund ...’147 Although the section 28 of the SARB Act creates the exceptional money flow paths into and out of this Contingency Reserve Account148, the transfers themselves may be challenged on the basis that the corresponding amounts of money have not been ‘reasonably excluded by an Act of Parliament’149.

*Meaning of money in the Constitution.*

It is very noteworthy that the supreme law of the Republic does not restrict the meaning of *money* to tangible legal tender. It is common knowledge that modern governments (just as their subjects) use

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143 Section 27 of the South African Reserve Bank Act 90 of 1989.
144 Section 28(1) of the South African Reserve Bank Act 90 of 1989.
145 Section 28 of the South African Reserve Bank Act 90 of 1989. Clearly, the ‘State Revenue Fund’ should have been amended after 1996, failing which it must be deemed to be the constitutional ‘National Revenue Fund’.
146 Section 28(2)(b) of the SARB Act states that ‘any profit ... in the Gold and Foreign Exchange Contingency Reserve Account ... may, at such times as the Treasury and the Bank deem desirable, be credited to the State Revenue Fund.’ And section 28(3)(b) of the SARB Act states that ‘any loss ... shall be carried forward in the Gold and Foreign Exchange Contingency Reserve Account until the Treasury and the Bank deem it desirable to settle the outstanding balance’ from the State Revenue Fund.
147 Section 28(2)(c) of the South African Reserve Bank Act 90 of 1989.
148 Instead of into the National Revenue Fund.
149 Section 213(1) of the SA Constitution of 1996.
predominantly bank credit in discharging monetary obligations and in revenue collection. In South Africa, the Revenue Fund money is kept in commercial banks in the form of account balances. Hence, money in sections 77 and 213\textsuperscript{150} includes legal tender (if any), bank credit, and anything else that may form part of revenue, or is the subject matter of a money Bill\textsuperscript{151}. It is submitted that the 'money' in the RSA Constitution of 1996 refers to the intangible expectation of some quantity of purchasing power.

**The primary object of the South African Reserve Bank?**

The Constitution is unclear about who and how determines or regulates the quantity of purchasing power in a unit of money. In a vague way, the Constitution seems to hold the Central Bank\textsuperscript{152} responsible for and capable (?) of performing this task (emphasis is added):

S. '224 (1) The primary object of the South African Reserve Bank is to protect the value of the currency in the interest of balanced and sustainable economic growth in the Republic.

(2) The South African Reserve Bank, in pursuit of its primary object, must perform its functions independently and without fear, favour or prejudice, but there must be regular consultation between the Bank and the Cabinet member responsible for national financial matters.'

S. '225 The powers and functions of the South African Reserve Bank are those customarily exercised and performed by central banks, which powers and functions must be determined by an Act of Parliament and must be exercised or performed subject to the conditions prescribed in terms of that Act.'

It is respectfully submitted that the subsection 224(1) of the RSA Constitution of 1996 is a typical political slogan — it sounds good but means very little. Furthermore, the vague 'primary object of the South African Reserve Bank', by being defined in the Constitution\textsuperscript{153}, overrides any conflicting basic rights in the Bill of Rights by force of the limitations' sub-section 36(2) of the Bill of Rights. Surprisingly, this vagueness and quite apparent discrepancy with the constitutional principles was neither

\textsuperscript{150} and S. 226.

\textsuperscript{151} From the fact that money is not explicitly defined in the Constitution follows that money Bill is not defined either. This makes it not very clear, which Bills may or may not be initiated by the Parliament.

\textsuperscript{152} The South African Reserve Bank.

\textsuperscript{153} Instead of leaving it to the Reserve Bank Act.
raised at the certification hearings in, nor noted by, the Constitutional Court:

'[The Constitutional Principle] XXIX reads: "The independence and impartiality of ... a Reserve Bank ... shall be provided for and safeguarded by the Constitution in the interests of the maintenance of effective public finance and administration and a high standard of professional ethics in the public service."

Objection was taken to the [New Text of the Constitution] on the ground that the independence and impartiality of [the Reserve Bank] has not been "provided for and safeguarded" as required by the [Constitutional Principles].'154

The Constitutional Court dealt with this objection by referring the parties to the stated primary object:

'All of the powers and functions of the institution will flow from the "primary object" and will accordingly be protected by the provisions of [section] 224(1) [of the New Text of the Constitution].'155

The Constitutional Court apparently followed the text of the constitution in a literal manner and did not notice that the entire construction is founded on a "primary object" that is not defined by the constitution and not even required by the Constitutional Principles.156 Correspondingly, the powers and functions that the Reserve Bank must pursue — or as the Court put it, flow from the "primary object" — are as vague as the primary object itself. Accordingly, the protection by section 224 is just as meaningless. In view of the vagueness of section 224, we better follow section 225 of the Constitution to the South African Reserve Bank Act 90 of 1989 (as amended) for assistance. Apart from minor grammatical changes from section 224(1) of the Constitution and a more 'legally peremptory' formulation, the SARB Act of 1989 is no more meaningful:

S. 3 Primary objective of Bank

The primary objective of the Bank shall be to protect the value of the currency of the Republic in the


156 The Court evidently did not use experts to explain if the effective public finance in the Constitutional Principle XXIX means or is guaranteed by protection of the value of currency. It is submitted that these are two very different notions. Arguably, the purpose of these hearings was not an analysis of highly technical functions.
interest of balanced and sustainable economic growth in the Republic. [Last amended by Act 2 of 1996.]

Clearly, the legislature has refrained from interpreting the constitutional directive — perhaps it was considered to be self-evident, or it was too difficult, or the political majority of the legislature had an interest in keeping it vague\(^{157}\). Even though it is arguably not the task of a Constitutional Court to analyse some highly technical functions of state institutions, the same cannot be used to excuse a democratically elected legislature. Partly because the section 225 of the Constitution refers to the powers of the SARB and partly for reasons that will become clear shortly below, the section 10 of the SARB Act of 1989 is of interest (emphasis is added):

S. 10 Powers and duties of Bank

(1) The Bank may, subject to the provisions of section 13—

(a) (i) make banknotes or cause banknotes to be made;
(ii) coin coins or cause coins to be coined;
(iii) issue banknotes and coins, cause banknotes and coins to be issued, for use in the Republic;
(iv) make, or cause to be made, banknotes to be issued for use in another State, and coin, or cause to be coined, coins to be so issued; and
(v) destroy banknotes and coins or cause them to be destroyed;

(b) with the object of making banknotes or coining coins, and with any object incidental thereto, form companies in accordance with the provisions of the Companies Act, 1973 (Act 61 of 1973), and take up shares in such companies;

(c) (i) perform such functions, implement such rules and procedures and, in general, take such steps as may be necessary to establish, conduct, monitor, regulate and supervise payment, clearing or settlement systems;

(ii) form, or take up shares or acquire an interest in, any company or other juristic person that provides — (aa) a service for the purpose of or associated with; or (bb) any facility for or associated with, the utilization of any such payment, clearing or settlement systems;

(iii) perform the functions assigned to the Bank by or under any law for the regulation of such payment, clearing or settlement systems; and

(iv) participate in any such payment, clearing or settlement systems; [Para. (c) last amended by Act 39 of 1997.]

(d) acquire shares in a limited company formed and registered in accordance with the provisions of the

\(^{157}\) The parliamentary majority is generally bound to the executive branch by political loyalty. Hence it would be generally naïve to expect the parliament to legislate contrary to the wishes of the executive branch.
Companies Act, 1973, if the Board is of the opinion that any such acquisition will be conducive to the attainment of any of the objects of this Act;

(e) accept money on deposit, allow interest on any deposit or on portion of a deposit and collect money for other persons;

(f) grant loans and advances: Provided that unsecured loans and advances may be granted only in the following cases, namely—

(i) an unsecured loan to the Government of the Republic or to a company referred to in paragraph (b) or, with the approval of the Board, to any company in which the Bank has acquired shares in accordance with the provisions of paragraph (d);

(ii) an unsecured loan or advance, at such rate of interest as the Board may from time to time determine, to an officer or employee of the Bank —

(g) buy, sell, discount or re-discount bills of exchange drawn or promissory notes issued for commercial, industrial or agricultural purposes, or exchequer bills of the Government of the Republic or of the government of any other country, or securities of local authority in the Republic;

(h) buy, sell or deal in financial instruments and, in accordance with the provisions of any law regulating the safe deposit of securities, hold such financial instruments in safe custody, or cause such financial instruments to be held in safe custody, for other persons; [Para. (h) last amended by Act 2 of 1996.]

(i) issue its own interest-bearing securities for the purposes of monetary policy and buy, sell, discount or re-discount, or grant loans or advances against, such securities;

(j) subject to the provisions of section 13(a) and (b), enter into repurchase agreements with any institution in respect of interest-bearing securities or such other securities as the Bank may determine;

(k) buy, sell, or deal in precious metals and hold in safe custody for other persons gold, securities or other articles of value;

(l) buy and sell foreign currencies;

(m) buy, sell, accept or deal in special drawing rights;

(n) open credits and issue guarantees;

(o) effect transfers in accordance with generally accepted banking practice, and sell drafts drawn on its branches and correspondents;

(p) establish branches or appoint agents and correspondents in or outside the Republic;

(q) open accounts in foreign countries and act as agent or correspondent of any bank carrying on business in or outside the Republic;

(r) make arrangements or enter into agreements with any institution in a foreign country to borrow, in such manner, at such rate of interest and subject to such other terms and conditions as the Bank may deem fit, any foreign currency which the Bank may consider it expedient to acquire;
(s) perform such other functions of bankers and financial agents as central banks customarily may perform;
(t) lend or advance money on security of a mortgage of immovable property or of a notarial or other bond or a cession thereof, to any officer or employee or former officer or employee of the Bank for the purpose of enabling any such officer or employee to acquire a dwelling for his own use: Provided that — ...;
(u) acquire immovable property required by the Bank for business purposes or for the purpose of providing a dwelling for any officer of the Bank ...;
(v) perform the functions assigned to the Bank by the Banks Act, 1990 (Act 94 of 1990), and the Mutual Banks Act, 1993 (Act 124 of 1993). [Para. (v) last amended by Act 2 of 1996.]

(2) The rates at which the Bank will discount or re-discount the various classes of bills, promissory notes and other securities, shall be determined and announced by the Bank from time to time.'

Other sections of the SARB Act too describe powers and duties which will be analysed later. Section 10 of the SARB Act of 1989 clearly does not help to understand the meaning of the Reserve bank’s primary obligation ‘... to protect the value of the currency of the Republic ...’. Noting that the Reserve Bank Act was promulgated in 1989, while the section 3 was amended apparently under the influence of the new Constitution in 1996, it might be informative to analyse what was changed in section 3.

What did the SARB do before 1996?

In 1995, the following was law (emphasis is added):

S. 3 Primary objective of Bank

In the exercise of its powers and the performance of its duties the Bank shall pursue as its primary objectives monetary stability and balanced economic growth in the Republic, and in order to achieve those objectives the Bank shall influence the total monetary demand in the economy through the exercise of control over the money supply and over the availability of credit.’

It seems that the older objectives of the Reserve Bank were formally subordinated to its powers and duties.158 It is submitted that the second of the two primary objectives — the ‘balanced economic growth’ — was merely a slogan and unwisely in conflict with the laws of nature. No bank has the power to engineer any economic growth, let alone balanced growth. The Reserve Bank, along with the fiscal policy of the executive,

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158 The powers and duties, as defined in section 10, have not changed significantly between 1995 and present.
other powerful economic actors and natural conditions, may seriously upset or destroy economic growth, but not create it. The world-wide 'stagflation during the 1970s clearly demonstrated that monetary policy was unable to durably push the economy beyond its potential [natural] rate of growth.\textsuperscript{159} In this respect, the wording of the amended section 3 is more realistic. It is made clear that the Reserve Bank has to serve the interest of economic growth, but is not held responsible for it.

The first of the two primary objectives in the older section 3 — the 'monetary stability' — sounds almost like the well know (libertarian) monetarist approach of Milton Friedman, Robert Lucas and others. But it could also mean Keynesian activism, it depends on \textit{how} the Reserve Bank intended to 'exercise \ldots control over the money supply and over the availability of credit'.\textsuperscript{160} Another problem is caused by the word 'stability' not having a legally well defined meaning. Its common usage is extremely vague and the economists tend to use it wrongly. As the constitutional definition of the primary objective of the Reserve Bank does not (explicitly) relate to stability, it may no longer be important to argue over its meaning? Thus we turn the attention back to construing the meaning of 'protect[ing] the value of the currency of the Republic'.

\textbf{What must the SARB do now?}

First, it is the currency that has to be protected. Currency is not defined in the Constitution, in the Reserve Bank Act, nor even in the Currency and Exchange Act\textsuperscript{161}. There used to be a fairly well understood common meaning which associated currency with current money. Currency is defined in Woelfel (1994) as 'any form of money that serves as a medium of exchange and passes from bearer to bearer without endorsement.'\textsuperscript{162} This primarily referred to coins and paper money. However, the same source also refers to 'the bank deposit currency ...

\textsuperscript{159} Van't dack (2001), p. 6.

\textsuperscript{160} Neither of these two 'schools' was concerned with the legal difficulties of defining money.

\textsuperscript{161} 9 of 1933.

\textsuperscript{162} Woelfel (1994), p. 277. Geva (1987) supports only a more limited form of currency. As an adjective, '[c]urrency can be described as the transferability of money \textit{from hand to hand}, in payment of debts, free from claims to it on the part of all persons, including prior owners or possessors.' (P. 117, emphasis is added.)
that constitutes the principal means of payment in modern credit systems.\textsuperscript{163}

It is submitted that the Constitution has no purpose of differentiating between money\textsuperscript{164} and currency. Neither is there any current legislation that has an intention to do so for general purposes.\textsuperscript{165} Money/currency is used to store and transfer legally measurable quantities of exchange related expectations — in both tangible and intangible form.

It is submitted that the 'value of currency' should be replaced with the 'purchasing power of currency' for the sake of terminological clarity. It is still uncertain whether the drafters of the Constitution referred to the domestic purchasing power, or the foreign exchange rate, or if they had a sufficiently consensual opinion. Historically, the foreign exchange rate\textsuperscript{166} has attracted significant attention from economists, politicians and lawyers. It may be that the domestic purchasing power\textsuperscript{167} is more consistent with the purport of the Constitution than other reasonable measures of 'value'.\textsuperscript{168}

The final hurdle is the toughest. What does it mean to protect the value of currency? Protect against whom, or what? Does it mean that lessening of purchasing power needs to be protected against but increasing of the same is all right — or the opposite? Remember that until very recently, inflation — which means lessening of purchasing

\textsuperscript{163} Woelfel (1994), p. 752.

\textsuperscript{164} Which is clearly used in the wide sense in sections 77 and 213 of the Constitution and elsewhere.

\textsuperscript{165} For example, section 1 of the National Payment System Act 78 of 1998 defines 'money' as 'a banknote or coin issued by the Reserve Bank ...' and the conflicting definition of 'bank note' in section 1 of the Prevention of Counterfeiting of Currency Act 16 of 1965 '... does not include a bank note issued under section fourteen of the South African Reserve Bank Act, 1989 (Act 90 of 1989)'. These definitions are for the purposes of the respective Acts and not for the general South African law — even though it would be beneficial for a reasonable person if all Acts of Parliament used the same English language.

\textsuperscript{166} This used to be related to the 'intrinsic value' of convertible and precious metallic money. Later it became known as the 'extrinsic value' of fiduciary money.

\textsuperscript{167} And the associated price indices.

\textsuperscript{168} It would be correct to argue that the domestic and foreign exchange purchasing powers are related in an economic equilibrium — see for example eq. (4.54) — but this relationship is dependent on other countries' economic policies. Dynamically, the two purchasing powers deviate significantly from their equilibrium values.
power — has been believed by some first rate economists and second rate politicians to be 'in the interest of balanced and sustainable economic growth'! It is not even clear that the purchasing power of any currency can be protected as it is very strongly influenced by normal economic exchange processes, international trade and free choices of people individually or collectively. It is also not clear what changes in the purchasing power benefit or damage the interest of economic growth and over what time-span. The economists, politicians and others have argued about it longer than a hundred years and they have caused great damage by using monetary and fiscal measures in the so called interest of economic growth — balanced, sustainable or otherwise. It may not even be possible to implement the non-interventionist monetarist recipe of slowly increasing money supply, as the dominant part of any modern state’s currency is created by commercial banks, which are not as directly controllable by the Central Banks as the issuing\textsuperscript{169} of notes and coins.

\textit{Uncertainty about the objective of the SARB.}

It is respectfully submitted that the Constitution has not defined the objective of the South African Reserve Bank sufficiently clearly. It is well known that one should not conclude lightly that legislation contains 'futile or meaningless provisions'\textsuperscript{170}. Hence, \textit{a fortiori}, the Constitution should not be assumed to contain a futile and meaningless section 224! This lack of meaning could in principle be redressed by judicial law making\textsuperscript{171}. Although possible, this is not unconditionally recommendable. The courts are not well equipped to make a normative statement on such an elusive economic and emotional matter. On the other hand, as long as there exists a South African Reserve Bank that has by the nature of things such hugely concentrated power over commercial expectations within and outside the state’s physical borders, it would seem unwise to leave the definition of its primary purpose out of the Constitution, or to the mercy of elected legislators with short term political perspectives.

It is worth repeating that positive law should not be in conflict with laws of nature. The 'value of currency' (purchasing power) is

\textsuperscript{169} Section 10(1)(a)(iii) of the SARB Act of 1989.

\textsuperscript{170} Botha (1998), p. 57.

\textsuperscript{171} Rubin (1997) calls it judicial legislation.
determined by both. The Reserve Bank can fulfil constitutional imperatives only within the limits set by the nature of mainly economic relationships. Judges are (generally) not qualified to decide whether the utilisation of expectations in a country needs a central bank; or in case of the existence of a central bank, what are the significant natural scientific relationships that govern the existence of and transactions with expectations. Similarly, the natural scientists, economists, moralists and demagogues alone are not qualified to decide what positive law is needed for an orderly economic life in a society with conflicting interests, needs and rights.

A combination of vigorous natural scientific, economic and legal research as well as cautious judicial law making should continuously strive towards giving some (not necessarily constant) meaning to the primary objective of the South African Reserve Bank. If ever this problem comes before the Constitutional Court, then the Court should be careful not to construe the section 224 in too fixed or too specific terms — which may be found later to be in conflict with the true nature of economics\textsuperscript{172}.

On the other hand, it does not seem likely that there will be any constitutional challenge to the objectives of the South African Reserve Bank soon. The Reserve Bank itself seems satisfied with the present uncertainty and the associated relative liberty, so does the executive branch of the government that has entrenched constitutional discretion over monetary matters. Which private or corporate person would have the resources to challenge the status quo, and for what purpose? In the meantime, instead of trying to construe the vague section 224 of the Constitution or section 3 of the SARB Act on the basis of the basic values in the Bill of Rights, it seems to be more useful for a commercial lawyer to analyse the de facto operational goal(s) of the Reserve Bank as they are understood by the Reserve Bank leadership, the Government and other influential actors.

\textsuperscript{172} The resulting embarrassment would be the least of the problems. It is by no means suggested here that the academics who call themselves economists, with or without the macro- and micro- qualifiers, know the true nature of economics. There surely are some that come close, but how would the judges know for sure which? The recent history is too full of evidence of unresolved disputes between the economists themselves.
What is the SARB doing?

According to the public statement of its current mission and vision, the South African Reserve Bank 'regards its primary goal in the South African economic systems as "the achievement and maintenance of financial stability".' The emphasis and double quotes are original. At a deeper level of the same statement, the 'Reserve bank is committed to ensuring financial stability in the interest of balanced and sustainable economic growth.'

It is not the monetary stability as in section 3 of the pre-1996 SARB Act, but financial stability. The difference needs clarification. It is submitted that the monetary stability relates to the dynamic behaviour of the money supply (such as quantified by M3) and it seems that the financial stability relates to the dynamic behaviour of financial asset prices, including exchange rates. In the opinion of Anton Casteleijn of the South African Reserve Bank, the financial stability ... is a necessary component of monetary stability. This statement of potentially very relevant fact is not convincing without more. Among other things, it seems that the Reserve Bank has not since 1986 stabilised financial asset prices — at least not as their official primary goal. This is evidenced by the following.

The Reserve Bank ... [has] assume[d] responsibility for: (1) formulating and implementing monetary policy in such a way that the primary goal [of financial stability] ... will be achieved ... ... and (4) informing the South African community and all interested stakeholders abroad about monetary policy ... There was a banking Conference on the Monetary Policy Frameworks in Africa that took place in September 2001 in Pretoria, South Africa. Central bank representatives from fifteen African states and from the Bank of International Settlements (BIS) presented papers that are available from www.resbank.co.za. According to the South African presentation, the South African Reserve Bank

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174 This is superficially close to the Constitutional Principle XXIX which referred to the maintenance of effective public finance and administration.
176 Senior economist in the Macro Models Unit of SARB.
monetary policy attempted to achieve ‘monetary growth targets ... for M3 ... from 1986 to 1998.’\textsuperscript{179} In the following two years, informal inflation targeting and M3 money supply were ‘supplemented by an eclectic set of indicators ... including the exchange rate, asset prices and the output gap.’\textsuperscript{180} From 2000 on the formal inflation targeting (as measured by a certain consumer price index\textsuperscript{181}) was introduced as the primary goal of monetary regulation and policy.

The above information was made available on one of the South African Reserve Bank world-wide-web sites, www.resbank.co.za. However, another web site www.reservebank.co.za (last updated on the same 20\textsuperscript{th} of June 2002), under SARB activities / Financial stability, actually gives a definition of sorts:

‘Financial stability can be described as the absence of macroeconomic costs of disturbances in the system of financial exchange between households, businesses and financial-service firms. Stability would be evidenced by, \textit{firstly}, an effective regulatory infrastructure, \textit{secondly}, effective financial markets and, \textit{thirdly}, effective and sound financial institutions. The reliance on private and market forces to the fullest extent possible in order to achieve financial stability and that any intervention should be at the minimum level needed to contain systemic risk.

Financial instability, on the other hand, would ultimately manifest itself through, \textit{firstly}, banking failures, \textit{secondly}, intense asset-price volatility and, \textit{thirdly}, a collapse of market liquidity. The disruption of the payment and settlement system would be the result of these manifestations.’

What a veritable \textit{pot pourri} in the original literal meaning!\textsuperscript{182} If the authors of the above have authority to ‘stabilise’ our monetary system

\textsuperscript{178} The SARB internet site www.resbank.co.za. last updated on the 20\textsuperscript{th} of June 2002.

\textsuperscript{179} Casteleijn (2001), p. 5.

\textsuperscript{180} Casteleijn (2001), p. 6.

\textsuperscript{181} CPIX, which excludes mortgage bond interest component from the indexed consumer payments.

\textsuperscript{182} A \textit{pot} full of terms that have lost their meaning in the \textit{rotten} (from the French \textit{poum}) mixture.

For example, stability has no inherent relationship to the amount of costs. Stability can be attained by expensive or cheap means — this depends on what other performance characteristics are specified — and may not be attainable with any amount of expense spent on regulatory infrastructure. Infrastructure does not suffice for stability and its presence may evidence only well-paid state employee positions.
and 'defend' the value of our currency then our future is unpredictable — or worse.

Is the Reserve Bank stabilising financial asset prices or trying to achieve predefined consumer price index values? Does the Reserve Bank know what the difference is? Surely the Governor of the Reserve Bank must have been told that financial asset prices are not in the generally accepted 'basket' of consumer goods that is used for the measurement of CPI? It is not easy to judge from the outside as 'none of the minutes of meetings of the Board of the South African Reserve Bank, the MPC\textsuperscript{183} or the Governors' Committee is published at this stage.'\textsuperscript{184}

Further difficulty is created by the inescapable impression that within the South African Reserve Bank, 'value of currency' is understood to be measured by the foreign exchange. For example, Casteleijn clearly equates 'weakening in the value of the rand' with 'depreciation in the exchange rate of the rand' and with 'depreciation in the value of the rand'.\textsuperscript{185} The South African Reserve Bank Governor Mboweni uses 'value of the rand' in the monetary policy statements of the MPC only in relation to foreign exchange. Between March 2001 and June 2002, eight statements were issued in which the word 'value' was never used in relation to consumer prices or indices. Typically, the statement issued on the 20\textsuperscript{th} of September 2001 refers to the depreciation of the 'trade weighted value of the rand' against all the major currencies, and the statement issued on the 13\textsuperscript{th} of June 2002, refers to the 'depreciation of the external value of the rand'. If this is indeed the definition of the value of currency for the purposes of section 224 of the Constitution, then stabilising asset prices or consumer price inflation cannot be the primary constitutional objects of the Reserve Bank?

*Price stability.*

Some clarity is provided in the paper presented by the BIS representative at the above mentioned banking conference. In the opinion of Jozef Van't dack\textsuperscript{186} of the Bank for International Settlements, "[s]ince

\textsuperscript{183} The Monetary Policy Committee of the SARB.

\textsuperscript{184} Casteleijn (2001), p. 10. However, (sanitized) Monetary Policy Statements are released by the MPC — see for example [www.resbank.co.za](http://www.resbank.co.za).


\textsuperscript{186} Adviser to the General Manager, BIS.
the mid-1980s, a strong and broad consensus has built that the
overriding objective of monetary policy should be the pursuit of price
stability."187 However, 'there is much less agreement about what this
implies in practice.'188 In particular, how stable is stable enough? Van't
dack seems to associate the degree of stability with the desired rate of
inflation of, somewhere around 1 to 3% per annum. This is an
inappropriate use of the word 'stability' in an otherwise very informative
exposition of monetary policy options. It is necessary to clarify this point
before proceeding.

Stability is fundamentally a system concept. Essentially, it
reflects a relationship between system inputs and outputs, such that
bounded inputs cause bounded outputs. The inputs include
environmental excitations and disturbances outside the control of the
system operators. Additionally, it usually means that arbitrarily small
deviations from some given input values or transients lead to
correspondingly small deviations from the output values or transients
that would have appeared in response to those given input values or
transients. There are no varying degrees of stability — a system is either
stable or unstable.

Stability is not a useful concept in relation to signals or variables.
The (rapid) fluctuation and (slow) modification of some variable (such as
a price) may be the result of instability in some transmission mechanism
from another variable, or it may be a completely stable response to some
other fluctuating or otherwise changing variable. In case of fixed money
supply, the prices change in a stable manner as a result of population
change, money turnover rate change, productivity change and so on.
Stable price fluctuations may be caused by natural disasters, seasonal
variations of natural conditions and so on.

It seems that in most cases where economists talk about stability
of prices and the like, they are actually concerned either with their
variability189 or with the sensitivity of these variables with respect to
other economic variables. Sensitivity can have any numerical value, not

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189 Also called 'volatility'. Qunta (2002), Annexure 1, defines volatility in
the context of exchange rate as '[t]he variability of the exchange rate.'
Quantitatively, '[f]or option pricing models it is [calculated] as the
standard deviation in the logarithm of the exchange rate, expressed at an
annual rate.'
just yes or no. Hence, 'stability' should in most cases be replaced either by some reasonably low limit of variability or by some reasonably 'low sensitivity' with respect to some relevant disturbance.

It seems quite obvious that those central bankers that claim to target 'price stability' are actually concerned with a low, and perhaps steady, numerical value of the inflation rate as measured by some (consumer or other) price index. The stability of the related and interconnected economic systems is a very useful, but not sufficient, condition for achieving and maintaining this goal. Apparently unbeknown to most bankers and financial regulators, the regulatory feedback loops can and do destabilise economic systems that would be stable if left to their own devices. This is not the appropriate place to explain feedback theory. It must suffice to warn that too intensive and rapid (impatient) regulating activity leads necessarily to potentially self-destructive instability because of the inherent delays in the responses to the regulatory activity or policy decisions and the delays in detecting the resultant changes in the regulated variables.

Some fundamental choices.

According to Van't dack, a first fundamental choice for monetary policy makers is the nature of the foreign exchange regime. Apparently, the 'irrevocably' fixed exchange rates (such as currency unions) and a completely free float tend to result in more steady prices than the intermediate regimes. There are many unfortunate experiences with fixed exchange rates, especially when a country is not able to subordinate its monetary policies to another's. In case of exchange rate flexibility, 'the central bank will need to conceive an explicit strategy to achieve price

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190 There are examples, where one part of the economic system is unstable, but another is stable. For example, Albania was after WW2 so self-isolated that its economic stability or instability had no effect on the neighbouring countries.

191 The technically minded reader could consult Eitelberg (2000a).

192 It should be clear that the monetary policy makers should have an undivided authority for effectiveness. If different aspects of monetary policy — such as the inflation, interest and depreciation rates — are determined or regulated by independent authorities, then the entire monetary-financial-economic system is likely to become unnecessarily and extraordinarily sensitive to small disturbances and policy changes. See Eitelberg (1999) generally for the analysis of cross-sensitivity and counter-intuitive failure modes in control systems with multiple powerful regulators.

[steadiness].\textsuperscript{194} From the crude quantity theory of money, it seems reasonable to expect the price level to be strongly linked to the money supply, such as measured by M3.\textsuperscript{195} Van't dack qualifies this by stating that ‘in the long run, inflation remains very closely associated with the pace of money growth.’ However, ‘in nearly all countries which have witnessed financial liberalisation and have seen their financial markets develop, the link between money and prices in the short run has broken down or has become unpredictable’.\textsuperscript{197} No reasons are given explicitly.

There is no mystery if one remembers that the above prices and inflation refer to a (small and somewhat arbitrary) selection of consumer goods and services. For example, modern economies have very substantial market segments dedicated to financial assets, such as bonds, securities, equities etc, which are not included in the CPI (or the South African CPIX) accounting and which tend to have quite different dynamics from the consumer markets. Yet they are not separated from each other. '[I]mportant two-way linkages exist between monetary and financial stability'.\textsuperscript{198} Be it as it may, the direct targeting of consumer price steadiness has become more popular world wide — including in South Africa. This is by no means an easy task, because of the often unpredictable and poorly understood speculative asset price behaviour and its influence on the consumer market.

Purchasing power?

In conclusion, it can only be repeated that the choice of ‘value of currency’ in section 224 of the Constitution is unfortunate. The ‘purchasing power’ should have been used for technical clarity. As the matters stand, the constitutional ‘value’ should be interpreted as intending to say ‘purchasing power’. It is not clear from the Constitution if the ‘consumer purchasing power’ has to be read into ‘value’.

\textsuperscript{194} Van’t dack (2001), p. 8, uses ‘stability’ instead of ‘steadiness’.

\textsuperscript{195} ‘In South Africa the M3 money ... consists of notes and coin in the hands of the public and all deposits of the domestic private sector with the banking system. (Qunta (2002), Annexure 1)

\textsuperscript{196} How long is long run, is typically left unclear.

\textsuperscript{197} Van’t dack (2001), p. 8.

\textsuperscript{198} Van’t dack (2001), p. 10.
The South African Reserve Bank claims presently a number of things as its primary objective, among which following a CPIX target range features prominently. In this regard Governor Mboweni stated the following in June 2000: 'May I conclude with a quote from a recent press release by the Bank for International Settlements (5 June 2000): “Maintaining price stability is the best contribution that central banks can make to continued prosperity.” We in the Reserve Bank endorse this view and undertake to pursue prudent monetary policy to achieve the inflation target range of 3 – 6 per cent in CPIX(mu) on average in 2002 as set by the Government.'

Despite these protestations, inflation targets are not necessarily achieved. Since the introduction of this target range in 2000, the CPIX was below 6% for only a month or two in 2001, was approaching 10% in the middle of 2002, and exceeded 12% by November of 2002.

The CPIX is of little use in judging the living standard of people that have to pay interest on their mortgage bonds, or rental to flat owners with outstanding mortgage bonds. These very substantial payments, which may be in the order of one third or more of an ‘average’ person’s disposable income, are ‘perversely’ excluded from the CPIX. Although targeting of the CPIX may be compatible with the constitutional primary object of the Reserve Bank, it cannot be said that it alone suffices or that changing the monetary policy towards following other goals would be unconstitutional.

**Constitutionality of the present arrangement?**

The Reserve Bank does not presently have the autonomy of setting the inflation target value (or its target range) in its monetary policy. Also, the Government may request (irresistibly) interest rate modification for other purposes than the CPI. Furthermore, exchange rate depreciation and general inflation are known to be related by natural economic relationships. Therefore, regulation of any type of purchasing power of the currency may be futile when the exchange rate is controlled.

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200 Myburgh (2002), para. 13.4 on p. 45 of Part D.

201 Casteleijn (2001, p. 7) considers these consumer payments to be ‘perversely’ because they ‘fall as the Reserve Bank relaxes monetary policy, and vice versa.’

202 See eq. (4.53) in the next section.
by a different institution. This is actually the case in South Africa, where the entire 'exchange control policy is determined by the Minister of Finance. This situation, where the inflation target and the entire foreign exchange policy are determined by the Government, clearly stretches the patience of section 224(2) of the Constitution where there does not seem to be any room for a Government between the constitutional objective and its independent and fearless pursuit by the Reserve Bank? 

4 Foreign exchange.

Money was shown above to be a medium of exchange and a common denominator for the exchange of goods and services in a market economy. In a closed economy of a state, there is no need to consider money of any other state. Because of international trade and travel however, one has no choice but to devote some attention to foreign moneys. The role of the money of a foreign state within that state is generally very similar to the role of the domestic money in its issuing state. Both carry expectations in their respective states and both are the common denominators of value in their respective states.

The word 'exchange' refers to the act of exchanging goods, money and other things, as well as to the corresponding institutional arrangements. However, 'foreign exchange' is commonly used as a synonym for foreign money and for foreign credit as a substitute for the corresponding foreign money under certain conditions. In financial circles for example, foreign 'banknotes need not necessarily be foreign

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203 Myburgh (2002), para. 129 on p. 60 of the Executive Summary. In para. 41 on p. 17 of this report, it is acknowledged that '[t]he internal purchasing power (determined by inflation) of a currency and its external value (exchange rate) are broadly related and tend to move together over time.' No reasons were given for this observation.
exchange. They can be converted into foreign exchange provided they can be placed without restriction to the credit of an ordinary commercial account abroad.204

Metallistic dominance of foreign exchange despite national nominalism.

In earlier times, when money was universally linked to a well-defined commodity like gold or silver, the relationship between moneys of different countries was quite clear. The amount of the precious metal in — or backing — the local and a foreign coin had a dominant influence on their exchange ratio.205 Thus if a peso contained $x$ grams of silver and a pound contained $y$ grams of silver, then one peso would be exchanged for \(\frac{x}{y}\) pounds, less commission, or one pound would be exchanged for \(\frac{y}{x}\) pesos, less commission. One of the reasons for this simplicity was based on the ease of melting206 the foreign coins and minting, say, from every $y$ pesos exactly $x$ pounds.207

No state could force its own ‘nominalism’ on another state’s money208 and the metal aspect of money survived209 against the municipal dominance of nominalism (with occasional breaks) well into the twentieth century in foreign exchange ratios. In fact, for much of the recorded history210, there was no need to melt foreign coins — the mere possibility of doing so sufficed to determine the exchange ratio and even permitted their use outside the issuing jurisdiction. For example, large quantities of Roman gold coins from the period of Augustus (ruled 27 BC to AD 14), Tiberius (ruled 14–37) and Nero (ruled 54–68) have been found in India. Many of these coins are over-struck with a bar, which may indicate that they were used as bullion in India.

\[206\] Nussbaum (1950), p. 316 n. 35.
\[207\] $y$ pesos contain $yx$ grams of silver and $x$ pounds contain the same $xy$ grams of silver.
\[208\] Nussbaum (1950), p. 313: Edward III of England ‘... in 1343 ... tried to free himself of the pressure of the continental valuation of the florin.’
\[209\] And seemed to have confused von Savigny into thinking that the ‘Kurswert’ determined the ‘Vermögensmacht’ of money.
\[210\] Even after the establishment of the doctrine of (sovereign state, internal) nominalism.
Pliny is reported to have complained that the Indian luxury trade was depleting the Roman treasury.\footnote{Encyclopaedia Britannica (1989), vol. 21, p. 41.} Occasionally, foreign coins were made legal tender in relatively recent times: such as the English sovereign in Switzerland in 1870, in Argentina in 1887 and in India in 1893; some American and other gold coins in Mexico in 1918.\footnote{Nussbaum (1950), pp. 313–314.}

The exchange calculations were slightly more complicated and more variable, when more than one precious metal was associated with expectations in the same or different countries. But the principle was still the same. However, the exchange ratios of two or more contemporary fiat moneys\footnote{The same would apply to money backed with insignificant amounts of gold or any other commodity.} are determined fundamentally differently.

**Exchange of fiat moneys — direct and indirect substitution.**

The fundamental starting point is the natural-economic fact that the purchasing power of any money (supply) is determined by the actual exchange processes. Exchange against foreign money has two aspects: first, it is exchange of two different desirables; second, it extends the local exchange market into a foreign market of goods and services. For the consumers of a country A, it makes no direct material difference\footnote{The occasional waves of buy-local patriotism are ignored here.} if they get their primary desirables from their own state A or from another state B. It then follows that they need to hold some of their expectations in the money of state A ($M_A$) and some in the money of state B ($M_B$) — especially if state B has legal tender related legislation that excludes the money of state A from ordinary payment transactions. For a consumer of country A there are two ways to obtain $M_B$ — for $M_A$ or for the primary desirables $D_A$ produced in the state A. This is illustrated in Figure 3-1.

There are two mechanisms that make $M_A$ and $M_B$\footnote{In the sense of money supply.} (economic) substitutes for each other. One is based on the substitutability between many (but not all) desirables from the different economies A and B. Thus, even if $M_A$ cannot be exchanged for $D_B$ directly, the consumers can use $M_A$ to get $D_A$ or $M_B$ to get the equivalent substitute $D_B$. The other mechanism is based on the fact that a producer of a desirable $D_A$ does
not care generally if the purchaser is from the economy A or B, as long as the received money carries expectations reliably and rationally.

Figure 3-1: Foreign exchange related transactions. The participants in the economy A own some quantity of $M_A$ and $M_B$, and produce $D_A$. Similar applies for the economy B. Transactions that are indicated with dashed lines are sometimes prohibited by foreign exchange control related legislation in the state A or B.

In a relatively open economy, such as A in Figure 3-1, the purchasing power of the money supply $M_A$ is no longer determined by the direct exchange between $M_A$ and $D_A$ alone. At least two other exchange processes co-determine this purchasing power. $M_A$ is exchanged also for $M_B^{216}$ and hence some of the expectations in $M_A$ are no longer (immediately) available in the exchange for the primary desirables $D_A$. Secondly, not all of the goods and services $D_A$ are purchased by the natural holders of $M_A$. This is to say that some holders of $M_B$ may desire $D_A$ and if they are not able to exchange $M_B$ directly for $D_A$ they still create demand for $D_A$ indirectly through a temporary exchange of some amount of $M_B$ for an equivalent amount of $M_A$ which is then exchanged for a quantity of $D_A$.

From a slightly myopic point of view, the prices of $D_A$ should increase because of the additional demand from the economy B and they should decrease because less $M_A$ is available for $D_A$. Which influence is ultimately stronger depends, among many factors, on how competitive are the price and quality of the substitute goods and services in the economy B. Be that as it may, some quantity of $M_A$ and some quantity of

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216 Either because a consumer of the economy A needs $M_B$ for purchasing some $D_B$, because a consumer of the economy B needs $M_A$ for purchasing some $D_A$, or simply for financial investments (spreading the risk of loosing future value between different currencies).
TRADING WITH EXPECTATIONS

IV PURCHASING POWER

MB is available for exchange against the same goods DA (or DB in the economy B).

Purchasing power parity (PPP).

Some idea about a reasonably expected exchange rate is obtained by comparing the prices of some standard amount D of generally available goods or services that are traded in both A and B. In A, the price of this good or service is PA and in B, the price is PB. In a liberal trade situation with negligible transaction costs, a person needs

\[ m_A = P_A D \]  

units of A-money or

\[ m_B = P_B D \]  

units of B-money to satisfy her desire for D.

Let \( x_{AB} \) denote the rate of exchange from MB to MA — \( x_{AB} \) is the price of one unit of MB in units of MA. It follows that \( x_{BA} = 1/x_{AB} \). For example, \( x_{R\$} = 13 \text{ ZAR/USD} \) means that 1 United States dollar is exchanged for 13 South African rands. In the same example, ignoring the difference between selling and buying prices, \( x_{SR} = 1/13 = 0.076923 \text{ USD/ZAR} \).

A person may have the amount \( m_A \) but no amount of MB. In order to buy D from the B-market, this person needs to exchange a certain amount of MA into MB. The needed amount of MA is

\[ m'_A = x_{AB} m_B = x_{AB} P_B D = \frac{P_B}{x_{BA}} D \]  

Knowing the two prices \( P_A \) and \( P_B \), as well as the exchange rate \( x_{AB} \), any person can compare \( m_A \) to \( m'_A \). If \( m_A < m'_A \), then it is cheaper to buy D in the A-market. If \( m_A > m'_A \), then it is cheaper to buy D in the B-market. If \( m_A = m'_A \), then there is no difference, because the same amount of money buys the same amount of goods or services from both markets — this is called 'purchasing power parity' (PPP). At purchasing power parity, equations (4.38) and (4.40) give us a very simple expression for the equilibrium exchange rate:

\[ x_{AB} = \frac{P_A}{P_B} \]  

(4.41)
While this is academically pleasing and an arguably useful starting point, the reality is much more complicated. There are similar difficulties as were explained in relation to the selection of a representative basket of goods and services for the calculation of inflation rate. Furthermore, the transport and other export-import transaction costs for most goods are significant, many services and some goods are not internationally tradable, and so on.

Transaction costs differentiate prices.

As a (counter-) example, a mega-watt-hour (1 MWh) of electric energy costs around 40 US dollars in some highly industrialised countries, the price for the same amount of electric energy in South Africa costs about 60 rands. From the PPP equation (4.41), we would expect the exchange rate to be about $\frac{60}{40} \text{ZAR/USD} = 1.5 \text{ZAR/USD}$. In fact, at the time of writing, the exchange rate fluctuates around 10 ZAR/USD and was around 15 ZAR/USD a few months earlier. The economic process of achieving the theoretical purchasing power parity is so slow and indirect that other significant influences may make it practically not achievable.

The reason why consumers in the USA are not buying the very much cheaper electricity from South Africa is simply that there is no (significant) direct physical electricity transmission link between the two countries. However, there are indirect 'transmission links'. Among others, the United States consumers could buy all of their aluminium from South Africa, because the production of aluminium requires very large quantities of electric energy and hence cheap electricity leads to cheap aluminium. This is an indirect way of selling South African electric energy to the United States of America. Unfortunately, there are other countries that produce cheap electricity and hence cheap aluminium — there seems to be larger aluminium production capacity than demand. The United States consumers have choice and the United States aluminium producers have some governmental protection against foreign competition.

Purchasing power parity in financial investments.

There is one modern field of trade, where PPP is the rule rather than the exception. This is international financial investment in general, and real interest earning in particular. The greater the international
liquidity and the smaller the relevant taxes and other transaction costs, the closer are the prices to the purchasing power parity. However, because financial investments generally go through the foreign exchange twice — in opposite directions — the exchange rate is not determined by this PPP. Nevertheless, the exchange rate change is related to the financial market interest rates approximately as follows.

**Exchange rate depreciation.**

Let the exchange rate from $M_B$ to $M_A$ be $x_{AB}(t)$ at some given time $t$ and $x_{AB}(t+1)$ in one year from $t$. The annual exchange depreciation\(^{218}\) rate $d_{AB}$ of $M_A$ in relation to $M_B$ can be defined by

\[
1 + d_{AB} = \frac{x_{AB}(t+1)}{x_{AB}(t)} = \frac{x_{BA}(t)}{x_{BA}(t+1)}
\]  

(4.42)

Correspondingly, the annual exchange depreciation rate $d_{BA}$ of $M_B$ in relation to $M_A$ is given by

\[
1 + d_{BA} = \frac{x_{BA}(t+1)}{x_{BA}(t)} = \frac{x_{AB}(t)}{x_{AB}(t+1)}
\]  

(4.43)

Hence, the exchange depreciation rate of one currency with respect to another can be calculated from the other currency's exchange depreciation rate, because

\[
(1 + d_{AB})(1 + d_{BA}) = 1
\]  

(4.44)

Exchange depreciation can be positive or negative\(^{219}\). Clearly, if the currency $M_A$ depreciates in relation to $M_B$ ($d_{AB} > 0$) then the currency $M_B$ appreciates against $M_A$ ($d_{BA} < 0$). As an example, if the rand-dollar exchange rate was given in November 2001 by $x_{RS} = 16$ ZAR/USD and it will be $x_{RS} = 10$ ZAR/USD in November 2002, then the SA rand would appreciate against the US dollar because, from eq. (4.42), the

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\(^{217}\) PPP with respect to goods or services is related to the exchange rate itself because money is exchanged only once.

\(^{218}\) Historically, 'depreciation' and 'devaluation' have been associated with the debasement of money with respect to the precious metal content or backing (Woelfel, 1994, p.297 and 299) and hence indirectly with inflation. Nussbaum (1950, pp. 171-172) emphatically distinguishes the two. He equates depreciation with continuous loss of purchasing power of money (including domestic inflation) and equates devaluation with the discontinuous legislative act of reducing the precious metal content (or backing) of a monetary unit. Mann (1992) does not seem to find the difference too important — it is submitted, quite rightly so.
depreciation rate is a negative $d_{\text{RS}} = \frac{10}{16} - 1 = -37.5\%$. In the same scenario, from eq. (4.43), the dollar would depreciate by $d_{\$R} = \frac{16}{10} - 1 = 60\%$. To check, substitution into eq. (4.44) yields $(1-0.375)(1+0.6) = 1$ indeed.

**Transnational financial investments and depreciation.**

Let someone in state A have an amount $m_A$ of spare money to be invested. This person would get an annual interest rate $i_A$. After a year, this person has the nominal future value of $m_A$

$$F_A = (1 + i_A)m_A$$  \hspace{1cm} (4.45)

The relevant interest rate in another state B is $i_B$. Hence, the alternative is to first exchange $m_A$ into $m_B = x_{BA}(0)m_A$, invest it in B and have after one year the nominal sum

$$F_B = (1 + i_B)x_{BA}(0)m_A$$  \hspace{1cm} (4.46)

Then the nominal future value $F_B$ in eq. (4.46) is exchanged back into A-money at the future exchange rate $x_{BA}(1)$:

$$F'_A = \frac{(1 + i_B)}{x_{BA}(1)}m_A$$  \hspace{1cm} (4.47)

From eq. (4.42), $x_{BA}(0)/x_{BA}(1) = (1+d_{AB})$, hence

$$F'_A = (1 + i_B)(1 + d_{AB})m_A$$  \hspace{1cm} (4.48)

Knowing the two interest rates $i_A$ and $i_B$, as well as the expected future exchange depreciation rate $d_{AB}$, any person can compare $F_A$ to $F'_A$. For simplicity, different taxes, bank charges and other transaction costs are ignored here. If $F_A < F'_A$, then it is more profitable to invest in the B-market. If $F_A > F'_A$, then it is more profitable to invest in the A-market. If $F_A = F'_A$, then there is no difference, because the same amount of money is expected to return the same amount of profit from both markets — this is again ‘purchasing power parity’. At purchasing power parity, equations (4.45) and (4.48) give us a very simple expression for the equilibrium exchange depreciation rate:

$$1 + d_{AB} = \frac{1 + i_A}{1 + i_B}$$  \hspace{1cm} (4.49)

219 Negative depreciation is appreciation.
Without depreciation, when \( d_{AB} = 0 \) (hence also \( d_{BA} = 0 \)),
persistent unequal interest rates cannot be maintained under liberal
legislation for trans-national capital flows. All investments would flow to
the country with the highest interest rate. The high interest rate will
generally eventually diminish because of the oversupply of funds — the
economies do not seem to be able to grow fast enough to keep up a
proportionate increase of demand for this investment. For example, if the
US interest rate is maintained around 3% for a number of years, the SA
interest rate is around 13% during the same time and no economic or
political upheavals are expected in either country, then it would be
rational to expect an average rand depreciation of \( d_{RS} = 1.13/1.03 - 1 =
9.7\% \) per year against the dollar. Exchange rates are very volatile and
may deviate significantly from the above given equilibrium value for other
reasons than short term investment. Among other causes, the existence
(and fear) of restrictive exchange control laws distorts the PPP exchange
depreciation.

The above analysed non-financial and financial purchasing power
parity is only a starting point. In reality both elementary economic
activities are linked and various transaction costs (taxes, duties) need to
be incorporated. Although a full treatment of the exchange rate
determination and dynamics would go beyond the present work, the
following is just an indication how domestic inflation is linked into the
present analysis.

The international linking of PPP interest, inflation and depreciation.

Consider a financial year in a financial and non-financial PPP.
Hence, eq. (4.41) holds at the beginning and at end of that year:

\[
\frac{P_A(0)}{P_B(0)} = \frac{P_A(1)}{P_B(1)}
\]

If the inflation rates in the two economies are denoted by \( p_A \) and
\( p_B \) respectively, then from eq. (4.50)

\[
\frac{P_A(1)}{P_B(1)} = \frac{1 + p_A}{1 + p_B} \left( \frac{P_A(0)}{P_B(0)} \right)
\]

Alternatively

\[
\frac{P_A(1)}{P_A(0)} = \frac{1 + p_A}{1 + p_B}
\]

\[
\frac{P_B(1)}{P_B(0)} = \frac{1 + p_B}{1 + p_A}
\]

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Note carefully that this ratio of exchange rates can be related to the two inflation rates as shown even though the purchasing power parity conditions in eq. (4.50) are violated. The purchasing power parity is a sufficient, not a necessary, condition for this and the few following equations. Substituting eq. (4.52) into eq. (4.42) yields

\[
1 + d_{AB} = \frac{1 + p_A}{1 + p_B} \tag{4.53}
\]

Finally, comparing to eq. (4.49) leads to the more complete PPP characterisation of liberal international financial and non-financial trade

\[
1 + d_{AB} = \frac{1 + i_A}{1 + i_B} = \frac{1 + p_A}{1 + p_B} \tag{4.54}
\]

Equation (4.54) shows, among others things, that inflation rates of tradable products from two liberally trading states are linked. Thus, if the US interest and inflation rates are 2% and 4% respectively, whereas the SA interest rate is 13%, then the expected equilibrium South African inflation rate should be around \( p_R = 1.04 \times 1.13 / 1.02 - 1 = 15.2\% \). At the same time, the rand should depreciate by about \( d_{RS} = 1.13 / 1.02 - 1 = 1.152 / 1.04 - 1 = 10.8\% \) per year against the dollar. If, for example, the US data is the same but the South African labour manages to get large salary increases which are passed onto the consumers and lead the SA economy into an inflation of say 25% per year, then a sustainable SA interest rate would be \( i_R = 1.02 \times 1.25 / 1.04 - 1 = 22.6\% \) and the rand would have to depreciate by about \( d_{RS} = 1.25 / 1.04 - 1 = 20.2\% \) per year against the dollar.

Even though, the South African economy is so small (in relation to the United States economy) that the influence of the above assumed South African inflation rate change on the latter is justifiably negligible, this is not so in case of, say, German or Japanese inflation. If, for example, the US Reserve Bank manages to eliminate inflation, then we cannot realistically assume that South African data remains the same and then calculate the corresponding US interest rate from eq. (4.54). A more correct approach would be to investigate what the actual US interest rate is and then draw conclusions about the South African PPP inflation, interest and depreciation.

A single international real interest rate.

Ignoring the exchange depreciation, eq. (4.54) can be written as
Using the definition of the real interest rate in eq. (4.22), leads formally to the conclusion that the PPP real interest rates in liberally trading states must be equal:

\[
\frac{1 + i_A}{1 + p_A} = \frac{1 + i_B}{1 + p_B}
\]  

(4.55)

**Interest rate manipulation.**

The above analysis assumed international economic equilibrium with or without inflation. Deviations from this equilibrium can be caused by natural disasters, powerful speculators, many other causes, and last but not least by individual or collective government interference\(^220\) in natural economic processes. It must be said, that disturbances lead to dynamic violation of the PPP conditions in eq. (4.54). Even after all disturbances subside, the equilibrium cannot be reached immediately (if ever) — some economic and psychological processes may take years.

The main contemporary method of this interference is to manipulate credit interest rates. This can be achieved for example by manipulating central bank lending interest rates to commercial banks under conditions when the banks cannot get cheaper credit either in the domestic or foreign financial markets. In this situation, the commercial banks cannot keep lending for long at lower interest rates than the central bank rate.\(^221\) One of the fastest effects of interest manipulation is felt in the forward exchange contract market.

**An example of interest rate manipulation.**

During the year 2000 the US dollar to South African rand exchange rate went steadily from \(x_{\text{RS}} = 6.11 \text{ R/$} \) in the beginning of the year to about \(x_{\text{RS}} = 6.11 / 0.8 = 7.64 \text{ R/$}.\)\(^222\) There was a depreciation rate

\(^220\) This is not necessarily meant to sound as criticism. A state may have legitimate reasons to counteract purely economic interests and forces.

\(^221\) The South African financial markets have been kept in this strict dependence for decades by very strict monetary and exchange control measures and regulations.

\(^222\) In para 83 of the Executive Summary of Myburgh (2002), a ZAR/USD index is given graphically over the years 2000 and 2001. At the end of 2000, this index was 80% and the index of 100% was defined to correspond to the exchange rate of 6.11 ZAR/USD at the beginning of this year.
\[ d_{\text{R\$}}(2000) = \frac{7.64}{6.11} - 1 = \frac{1}{0.8} - 1 = 25\%. \] Just before the end of 2001, the exchange rate reached \( x_{\text{R\$}} = \frac{6.11}{0.45} = 13.58 \text{ R}/\$ \). The corresponding annual depreciation rate was 
\[ d_{\text{R\$}}(2001) = \frac{13.58}{7.64} - 1 = \frac{1}{0.45} - 1/0.8 = 97\%. \]

The President of the Republic of South Africa appointed the commission of Inquiry into the rapid depreciation of the Rand and related matters\(^{223}\) under the Chairmanship of Advocate J. Myburgh.

In January 2002 the exchange rate steadied around 11.4 R/$ and dropped to around 10 R/$ in October 2002 [at the time of writing]. One of the reasons for this slow appreciation of the rand relative to the US dollar has been the appreciable increasing of the South African interest rate levels by the South African Reserve Bank to currently around 16\%. Simultaneously, the United States Federal Reserve Bank has reduced their prime lending interest rate to 1.5\% in order to stimulate economic growth by consumer and business borrowing. There is no appreciable inflation, when compared to South Africa.

The current appreciation of the South African rand cannot be sustained. It can be explained by speculative inflows of foreign currency and a correspondingly increased demand for rands in the foreign exchange markets. Sooner, rather than later, there must be a reversal.

The sustainable steady depreciation rate from eq. (4.49) would be around \( \frac{1.16}{1.015} - 1 = 14\% \) and from eq. (4.54) the corresponding South African inflation\(^{224}\) rate would have to be somewhere around 14\% without inflation in the United States and 16\% when the US inflation rate is equal to the US prime lending interest rate of 1.5\%.\(^{225}\) The reversals tend to exceed these values temporarily. In other words, the SARB (government dictated?) policy of maintaining a high interest rate is visibly and substantially in conflict with its openly declared goal of maintaining the inflation rate below 6\%. The above calculations show that the economic laws will ignore the South African positive law and as a consequence of the well-meant ill-advised interest manipulation will

\(^{223}\) Para 1 of the Executive Summary of Myburgh (2002).

\(^{224}\) The influence of different tax rates in South Africa and the United States is not considered in the simple calculations here.

\(^{225}\) A month after calculating these numbers, the SABC news confirmed the CPI and CPIx values of about 12\% and 14\% respectively, for October 2002.
violate the only constitutional obligation of the SARB by a factor of about 2.5.

*Foreign exchange hedging and speculation.*

Forward dealing is used by risk-averse international traders for hedging against exchange rate risk, as well as by financial speculators in search for quick enrichment.

For example, a merchant MercA in country A concludes an import contract and according to this contract will have to pay after $T$ days the price $P_B(T)$ in the legal tender of state B in the country B. MercA does not have B-money and will have to exchange the adequate amount of the domestic A-money into B-money sometime between now and $T$ days from now. MercA may not have the liquidity in order to carry out the necessary exchange now and would prefer to pay the price as late as possible. Although MercA could be guided by the PPP equation (4.54) he cannot be sure about the future exchange rate $x_{BA}(T)$. A rational sequence of financial dealings that postpones the payment and eliminates exchange risk is to borrow money from a domestic bank in A with a fixed nominal bank lending interest rate $i_A$, exchange it immediately into B-money and invest it in a foreign bank in B with a fixed nominal bank borrowing interest rate $i_B$ until the payment date. The necessary amounts of various sums are calculated backwards from the known future price as follows.

The present value of the future price in B-money is

$$P_B(0) = \frac{P_B(T)}{(1 + \frac{T}{365} i_B)} \tag{4.57}$$

We use here the common accounting practice of interest calculation for contracts of lesser duration than a year.\(^{226}\) Using the current exchange rate $x_{AB}$ — this is called the 'spot rate' $x_{AB\text{spot}}$ — the present value in A-money of the future price is

$$P_A(0) = x_{AB\text{spot}} P_B(0) = \frac{x_{AB\text{spot}} P_B(T)}{(1 + \frac{T}{365} i_B)} \tag{4.58}$$

In $T$ days from now, MercA will actually pay to his domestic bank the sum

\(^{226}\) See also the introduction to eq. (4.5).
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\[ F_A(T) = \left(1 + \frac{T}{365} r_A\right) P_A(0) = \frac{1 + \frac{T}{365} r_A}{1 + \frac{T}{365} r_B} x_{AB\text{spot}} P_B(T) \]  

(4.59)

Effectively, MercA exchanges, \( T \) days from now, \( P_A(T) \) for \( P_B(T) \) at a risk free 'forward rate' of

\[ x_{AB\text{forward}}(T) = \frac{1 + \frac{T}{365} r_A}{1 + \frac{T}{365} r_B} x_{AB\text{spot}} \]  

(4.60)

Most merchants lack the time and the direct connections to the foreign banks for taking care of all stages of the above sequence of forward oriented transactions. Instead, local banks offer (fixed) forward exchange contracts, based on the forward rate calculation in eq. (4.60). In financial circles, the difference between the forward and spot exchange rates is called 'forward points'\(^{227}\), which can be positive or negative:

\[ FP_{AB} = \left(\frac{1 + \frac{T}{365} r_A}{1 + \frac{T}{365} r_B}\right) - 1 \]  

(4.61)

The contracting bank is free to avoid or to carry the foreign exchange risk, but eventually somebody is carrying the risk.

Note that the forward rate equation (4.60) is an alternatively derived expression for the equilibrium exchange depreciation rate in eq. (4.49). For example, a year's forward rate is \( x_{AB\text{forward}}(1 \text{ year}) = x_{AB\text{spot}} \left(1 + i_A\right) / \left(1 + i_B\right) \).

With sufficiently liberal foreign exchange control legislation, the speculators will enter into forward exchange contracts when they believe that the future spot rate \( x_{AB\text{spot}}(T) \) will be greater than the contractual \( x_{AB\text{forward}}(T) \). They tend to use bank credit (borrowed money) for this purpose and have the risk of not having enough money to pay the debt at maturity. However, this risk may be very well worth taking, because the forward market supports self-fulfilling prophesies — at least temporarily. A large forward contract in the A-market creates immediately additional spot demand for B-money from risk averse A-banks. This will quickly increase the spot rate \( x_{AB} \) (beyond the purchasing power parity). This extraordinary exchange rate dynamics will be noticed by more profit

\(^{227}\) Fourie, Falkena and Kok (1999), p. 232, where the 360-day year convention is used instead of the 365-day calculation in the present text.
seekers and the vicious circle will be repeated — until the A-speculators start 'profit taking' by exchanging their B-money back into A-money on the spot or the (reverse) forward market.

The A-government may let the exchange dynamics run its course, but many governments have interfered and still do so by raising the domestic interest rates beyond what the speculators are prepared to risk. Alternatively, or additionally, the B-government could lower the foreign interest rate and thus make the financial investment in B-banks less attractive. These interventions have a delayed effect because the forward contracts have finite duration and cannot be cancelled. The success and the very significant economic (side) effects of an interventionist governmental foreign exchange policy are not at all clear and — despite an abundance of strongly worded opinions — no convincing analysis is known to this writer.

5 Foreign exchange regulation.

Foreign exchange and related transactions have been regulated in South Africa by a complex multi-layered set of laws of rather venerable origin. The modern foundation for this regulation must clearly be in the RSA Constitution of 1996. The most relevant sections are numbers 25 on protection of property, number 77 on money Bills in so far as they have 'any bearing upon currency, banking or exchanges', and last not least number 224 on protection of the (RSA) currency by the SARB. It would seem logical then that the regulation (if any) of the exchange of the RSA currency for foreign currency, gold or anything else, and any other forms

228 The effect of intervention would be more rapid in case of options contracts. Options do not seem to exist in the South African foreign exchange market and '[o]wing to exchange control regulations, South African participation in the currency futures and currency option markets abroad is still relatively limited.' See Fourie, Falkena and Kok (1999), p. 248.

229 In news media, academia and almost anywhere else.

230 Section 9(3) of the Currency and Exchanges Act of 1933.
of transfer of exchange expectations into or out of the Republic should fall squarely into the constitutional responsibility of the SA Reserve Bank.

This constitutional imperative is an historically recent invention. Exchange control has existed in the governmental systems of the world for centuries before the invention of the modern constitutional legal systems. Therefore, it should not be surprising that the much older exchange control institutions and laws are still in existence in South Africa. Their largely independent existence and constitutional validity does not seem to have been challenged yet.

**Legislative power of the President.**

The Parliament has delegated — in section 9 of the Currency and Exchanges Act 9 of 1933 — to the President very wide legislative power\(^{231}\) in respect of international transfer of purchasing power. This includes exchange between local currency, gold and foreign currency. Apart from section 2 on loan repayment, which was analysed above in relation to legal tender, there is only one other substantive section of the Currency and Exchanges Act of 1933 that has not yet been repealed:

> **9 Regulations regarding currency, banking or the exchanges**

1. The Governor-General\(^{232}\) may make regulations in regard to any matter directly or indirectly relating to or affecting or having any bearing upon currency, banking or exchanges.

2. (a) Such regulations may provide that the Governor-General may apply any sanctions therein set forth which he thinks fit to impose, whether civil or criminal....

3. Any regulation contemplated in paragraph (a) may be made with retrospective effect, and if so made, such regulations shall also apply to matters in respect of which legal proceedings have been instituted but have not been disposed of at the promulgation thereof. ...

4. The Governor-General may, by any such regulations, suspend in whole or in part this Act or any other Act of Parliament or any other law\(^{233}\) relating to or affecting or

\(^{231}\) The powers of the state president to make [exchange control related] regulations are *as wide as they can possibly be* (the emphasis is added), (Joubert (1998), Volume 10 Part 1, Paragraph 560, p. 360). See also the discussion of the dis-empowerment of the Parliament in section 3 of this Chapter.

\(^{232}\) A person in this type of position was called the State President until a few years ago and is presently called the President.

\(^{233}\) Any other law' refers to statutory law only: *Torwood Properties (Pty) Ltd v SA Reserve Bank* 1996 1 SA 215 (W) at 226. The decision in this case was confirmed on appeal: *SA Reserve Bank v Torwood Properties*
having any bearing upon currency, banking or exchanges, and any such Act or law which is in conflict or inconsistent with any such regulation shall be deemed to be suspended in so far as it is in conflict or inconsistent with any such regulation.

(4) The Minister of Finance shall cause a copy of every regulation made under this section to be laid upon the Table of both Houses of Parliament within fourteen days after the first publication thereof in the Gazette, [or] after the beginning of the next ordinary session of Parliament; [Only a] regulation calculated to raise any revenue shall cease to have the force of law from a date one month after it has been laid on the Table unless before that date it has been approved by resolution of both Houses of Parliament.

(5) (a) Any regulations made under this section may provide for the empowering of such persons as may be specified therein to make orders and rules for any of the purposes for which the Governor-General is by this section authorized to make regulations. ...

(6) The Treasury may consider and grant or refuse any application to purchase foreign currency by utilising a computer system or other electronic device or apparatus capable of absorbing and processing data and, in accordance with instructions given by the Treasury, of making available information indicating the refusal or approval of that application, in the form of a document.'

It may not have been necessary, but section 9(5)(a) of the Currency and Exchanges Act explicitly authorises the President to delegate his delegated exchange control regulating power further. The corresponding rules of law are called 'orders and rules'. As these further orders and rules may be made only for the same purpose as the regulations are made, they must be gazetted and tabled in the Parliament by the Minister of Finance exactly the same way as the regulations themselves have to be.\(^{234}\) Otherwise, the executive branch could too easily defeat the already extremely weak legislative supervision over exchange control — the object of section 9(4) of the Currency and Exchanges Act.

**At least four legislative layers.**

To put things in perspective, the regulation of South African currency/money has at least four 'legislative layers'. The first is the RSA Constitution of 1996, which puts the responsibility on the Reserve Bank.

\(^{234}\) S. 9(4) of the Currency and Exchanges Act of 1933.
The second layer is a remnant of an old piece of legislation, the Currency and Exchanges Act of 1933 as amended, which delegates extremely wide powers to the President and explicitly permits him to delegate these powers further. There is no direct linkage between the first and second layers.

The third layer consists of the Exchange Control Regulations of 1961, which essentially delegates all relevant powers to the Minister of Finance. The regulations are formally contained in a Schedule. The third layer exists 'in terms of section nine of the Currency and Exchanges Act'. The fourth layer consists of the Orders and Rules, made by the Minister of Finance. These Orders and Rules seem to have the same role in relation to the Exchange Control Regulations as schedules have in relation to Acts of Parliament.

Sub-regulation 22E(1) of the amended Exchange Control Regulations of 1961 *prima facie* creates the option of a fifth legislative layer by authorising the Minister of Finance to delegate to any person any power or function conferred upon the Minister himself by any provision of these regulations.

This is not contrary to section 9(5)(a) of the Currency and Exchanges Act of 1933, which permits delegation of the fourth layer powers to any person. This fifth layer may be, but is not necessarily, of legislative nature. The sub-regulation 22E(2) states that the Minister of Finance 'shall not be divested of any power or function or duty delegated to any person under sub-regulation (1) and may at any time withdraw or amend any decision taken by any such person ...'.

Thus, the fifth layer remains under the direct responsibility of the Minister, who is personally obliged by section 9(4) of the Currency and Exchanges Act to table any legislative component of the regulations in the Parliament.

*Foreign exchange responsibilities of the SARB.*

The only (juristic) person currently so empowered by the Minister is the SA Reserve Bank:

The Minister of Finance has appointed the South African Reserve Bank to carry out all the powers and functions assigned to the Treasury by these regulations with the
exception of the powers and functions assigned to the
Treasury by regulations 3(5) and 8, 16, 20 and 22.  

This means that the SARB has the delegated authority under
regulation 22E to delegate the same powers and functions further. It is
submitted that the SARB cannot delegate greater powers than those that
it has received from the Minister of Finance. In any case, the Minister
retains all those powers and the power to revoke the delegated powers.

It is a little ironic, that the Reserve Bank has received in a
subordinated, round-about and revocable way some of the powers from
the executive that it should have received constitutionally directly from
the legislature. It may be in the public interest to rectify this ill-
compatible statutory situation. The main reason for this suggestion is of
technical nature. Briefly, as has been elaborated above, the foreign
exchange regulation has direct impact on any reasonable measure of the
'value' of the currency, which the Reserve Bank is obliged to 'protect' by
the RSA Constitution. The Reserve Bank is apparently trying to regulate
a consumer price index, as a measure of this value. The two regulating
institutions are thus affecting the same thing and, depending on the
'strength' of the regulations, the result can be extremely sensitive to
small variations in the corresponding feedback loops.

Semi-secret nature of exchange control.

Before saying anything about the exchange control regulations,
orders and rules themselves, it is relevant to inquire how the public
would know its rights and obligations under this multi-layered system.
Well, the most technically qualified authority — the Reserve Bank —
clearly does not expect the general public to understand this regulatory
system. 'Persons who desire information or advice on exchange or
currency matters governed by the regulations ... should apply to the
Exchange Control through their bankers in the Republic or, if they have
no such bankers, through one of the banks' that '... have been

235 Order and rule number 2 of the Orders and Rules under the
Exchange Control Regulations, as published in Government Notice
R1112 of 1 December 1961 and amended up to Government Notice R.791

236 See Eitelberg (1999) for the mathematics, problems, quantitative
evaluation, engineering and design possibilities of these types of
regulating systems with multiple regulators.

237 Order and rule number 10.(a) of the Orders and Rules under the
Exchange Control Regulations.
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appointed as authorised dealers for the purpose of the regulations. It is not clear how a person should determine when he or she needs this information.

However, when a person knows that she needs this information then it is submitted that she must not rely on her own understanding, because the final details of the exchange control regulations are not gazetted — the major ones are issued by the Exchange Control Department of the South African Reserve Bank in the form of Exchange Control Rulings and seem to be communicated to the authorised dealers only. Furthermore, it is not clear if the 'norms and policies as applied by the Exchange Control Department of the South African Reserve Bank from time to time' are formally communicated to anyone? More uncertainty arises from the rather wide discretionary powers of the Exchange Control Department which have not been delegated to the authorised dealers.

Meaning of currency and money?

Neither currency nor money is defined in the Currency and Exchanges Act. Both are described in the Exchange Control Regulations, 1961. For the purposes of these regulations, 'unless the context otherwise indicates':

"foreign currency" means any currency which is not legal tender in the Republic, and includes any bill of exchange, letter of credit, money order, postal order, promissory

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238 Order and rule number 3 of the Orders and Rules under the Exchange Control Regulations.

239 This information is found in the Disclaimer of the SARB Exchange Control Manual. The Rulings constitute the sixth (arguably non-legislative) layer.

240 Section 3.4 of the Exchange Control Manual (issued by the SARB in 1996) states that 'Exchange Control Rulings ... set out ... the rules and procedures to be followed by the authorised dealers in dealing with day-to-day matters relating to exchange control. ... [T]he Rulings are not made freely available to the public.' Furthermore, the personal experience of the writer is that bank branches in residential areas and shopping centres do not employ sufficiently competent staff to have any meaningful discussion about the foreign exchange regulations.


243 Regulation 1 of the Exchange Control Regulations.
note, traveller's cheque or any other instrument for the payment of currency payable in a currency unit which is not legal tender in the Republic;
"gold" means gold in any form, except in Regulations 2 and 5 in which "gold" means any gold other than wrought gold;
...
"money" includes foreign currency or any bill of exchange or other negotiable instrument;
...

Clearly, the definition of foreign currency and money is here wider than the tangible money (notes and coins) and the bank credit. However, contrary to the opinion expressed in The Law of South Africa\(^{244}\), these regulations do not define 'money' — not even for their own purpose. It is submitted that whatever is money in the domestic legal usage, is extended to include foreign money and bills of exchange. Most notably, the extension is based on the various 'instruments' which evidence personal\(^{245}\) obligations of payment of what is normally considered as money or currency. In the context of these Regulations and section 9(6) of the Currency and Exchanges Act of 1933 as a whole, these instruments must be tangible or capable of becoming tangible 'in the form of a document'.\(^{246}\) The intangible bank credit is neither included nor excluded explicitly. However, the reference to any 'instrument' which evidences the right to payment of foreign currency may be interpreted to include foreign denominated bank credit in the 'foreign currency'.

Within the jurisdiction of South African law, one may exchange foreign currency and un-wrought gold only with the authorised dealers. Gold coins, jewellery and any other wrought gold may be bought or borrowed from and sold or lent to any other person within the Republic.

No foreign or local bank notes, or gold in any form whatsoever, may be taken or sent out of the Republic, except with a permission granted by the Treasury. Prima facie, this includes gold crowns, fillings and jewellery. Silver and silver coins are not mentioned in the Exchange Control Regulations. Neither are diamonds, other gemstones, platinum, or other more expensive rare metals mentioned — despite the fact that,


\(^{245}\) Including those that are negotiable.

\(^{246}\) The visible, legible and tangible nature of a 'document' is under attack from those technological and legal developments where 'writing' is extended to include various forms of not directly visible or tangible electronic communication and electronic storage of information (Eitelberg, 2000b).
TRADING WITH EXPECTATIONS

IV PURCHASING POWER

for example, platinum is currently almost twice as expensive as gold on
the world markets.247 All currencies and all forms of gold, except the
South African bank notes, may be taken or sent into the republic without
permission from the Treasury.

Purpose of exchange control?

The purpose of making ‘regulations in regard to any matter
directly or indirectly relating to or affecting or having any bearing upon
currency, banking or exchanges’ is not described anywhere in the
Currency and Exchanges Act of 1933, which predates even the Bretton
Woods agreements of 1945. It has been suggested that ‘[t]he object of the
Exchange Control Regulations is to control foreign exchange in the public
interest.’248 This is unconvincing. There is a strong and persuasive
contemporary opinion, that prior to 1933 the proponents of strictly
controlled ‘stabilising’ monetary policy may have caused or amplified the
world-wide recession, which cannot have been in the interest of the
general public in any of the affected states. Consider, for example, the
trenchant criticism by the historian Paul Johnson:

‘Interventionism by creating artificial, cheap credit was not
an American invention. It was British. The British called it
“stabilization”. Although Britain was nominally a laissez-
faire country up to 1914, more so than America in some
respects since it practised free trade, British economic
philosophers were not happy with the business cycle,
which they believed could be smoothed out by deliberate
and combined efforts to achieve price stabilization. It must
not be thought that Keynes came out of a clear non-
interventionist sky: he was only a marginal “advance” on
the orthodox British seers. Since before the [First World
War Sir Ralph Hawtrey, in charge of financial studies at

247 At the time writing, an ounce of platinum costs nearly 600 US dollars,
while the price of an ounce of gold had been hovering around 300 US
dollars.

was quoted and expanded by Kriek J in Barklays National Bank Ltd v
Brownlee 1981 (3) SA 579 (D&CLD) at 583H-584A: ‘The object of the
regulations is —

“... to control foreign exchange in the public interest, not to grant
a selective moratorium to a particular class of defaulting debtors”
(per Steyn CJ in Nestel v National and Grindlays Bank Ltd 1962 (2) SA
390 (A) at 395–6, and it is of no consequence that the learned Judge was
dealing with the predecessor of the present regulations); and —

“... to enable the Treasury to exercise proper control, directly or
through authorised dealers, over all such transactions in order to
protect the Republic’s reserves of foreign currency.”

(Per Trollip JA in S v Katsirakis 1980 (3) SA 580 (A) at 590[A].)’
[British] Treasury, had argued that the central banks, by creating international credit (that is, inflation), could achieve a stable price level and so enormously improve on the nineteenth century’s passive acceptance of the cycle, which he regarded as immoral. After 1918, Hawtrey’s views became the conventional wisdom in Britain and spread to America via [the contacts with their European allies during the negotiations leading to the Treaty of] Versailles...

Keynes put the case for a “managed currency” and stabilized price-level in his *Tract on Money Reform* (1923). By then, stabilization was not merely accepted but practised.249

The 1929 crash exposed ... the naivety and ignorance of bankers, businessmen, Wall Street experts and academic economists high and low; it showed they did not understand the system they had been so confidently manipulating. They had tried to substitute their own well-meaning policies for what Adam Smith called “the invisible hand” of the market and they had wrought disaster. Far from demonstrating, as Keynes and his school later argued — at the time Keynes failed to predict either the crash or the extent and duration of the Depression — the dangers of a self-regulating economy, the *dégringolade* indicated the opposite: the risks of ill-informed meddling.250

Later, under the fixed exchange rate regime of the International Monetary Fund Articles of Agreement of 1945, the domestic exchange control regulations may have been intended to maintain the agreed fixed exchange rates.251 This intention still lingers on in the South African Reserve Bank folklore that relates to the ‘stabilisation’ and ‘value’ of the South African rand. The strict control of exchange as implemented in South Africa may contradict one of the components of IMF’s primary objective — ‘elimination of restrictions on payments for current account transactions’.252 Since the world-wide collapse of the fixed exchange rate regime by 1980s, no new persuasive public policy argument is known to the writer. All references in connection with the ‘public interest’

251 It is well known that Milton Friedman has been critical of any governmental, or intergovernmental, interference in monetary and economic affairs. Already in 1953, he observed characteristically: ‘Flexible exchange rates are means of combining interdependence among countries through trade with maximum of internal monetary independence; they are a means of permitting each country to seek for monetary stability according to its own lights, without either imposing its mistakes on its neighbors or having their mistakes imposed on it.’ (Friedman, 1953.)
252 Article 1 of the IMF Articles of Agreement.
argument\textsuperscript{253} in The Law of South Africa\textsuperscript{254} predate the currently (internationally) dominating flexible exchange rate regime.

\textit{IMF Articles not incorporated.}

The purposes of the International Monetary Fund were formulated in Article I as follows:

'(i) To promote international monetary co-operation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.

(ii) To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy.

(iii) To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.

(iv) To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of world trade.

(v) To give confidence to members by making the Fund's resources available to them under adequate safeguards, thus providing them with an opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.

(vi) In accordance with the above, to shorten the duration and lessen the degree of disequilibrium in the international balance of payments of members.'

It seems that the 'international monetary co-operation' in section (i) and the 'growth of international trade' in section (ii) are not necessarily compatible. It is submitted that there is no natural reason why these goals could not be made compatible by agreeing and co-operating governments, but this does not seem to have been the case. Accordingly, international disputes are solved in different jurisdictions differently, based on which of the two potentially conflicting goals is given the higher priority. Schwab (1985) deduces from his analysis of numerous cases from many different legal systems the following.


While the European and English courts have acknowledged the importance of the Fund goal of international monetary cooperation, the New York courts have expressed an overwhelming preference for the Fund goal of promoting international trade.  

There are significant consequences to private litigants that arise from this public international law disagreement.

Qureshi (1999) focuses more on the technical goal of ‘maintain[ing] orderly exchange arrangements among members’ in section (iii). He summarises as follow:

'The character of the current system of exchange rate regulation is essentially that of soft law. The normative framework is crafted in the form of guidelines, recommendations, and exhortations to endeavour to achieve certain objectives. ... The mandate of the IMF in relation to exchange rates is set out in Article I (iii) of the IMF Articles of Agreement ... Exchange rate stability, although set out as an objective under Article I, has acquired a different meaning since the second amendment [in 1978 which was mainly concerned with introducing a new system of exchange rates]. Its inclusion dates back to the original Articles, but any discussion of amending Article I would have the effect of opening a pandora's box.'

It is submitted here that the IMF Articles were drafted and agreed to as hard international law, similarly to any other multilateral international treaty. There was nothing soft about these Articles — never mind how unwise they were, or how mistaken the underlying economic convictions of the drafters and negotiators were at the Bretton Woods, or how many of these Articles were blatantly violated by most of the leading states. It is not wise to rely on the self-preserving opinions of the IMF functionaries, with procedurally unclear loyalties between the IMF and the respective member states. Qureshi (as do others in the open literature) relies heavily on the interpretations and explanations of the apparently very influential long time General Counsel and Director of the

256 The expression 'soft law' is often a 'natural law' adherent's attempt to give some legal authority to her or his moral/ethical convictions, that do not have any binding effect in positive law.
259 This is the unmistakable impression one gets when reading the authoritative account of Lowenfeld (1984).
Legal Department of the International Monetary Fund, Sir Joseph Gold.260

About the only private law consequence of the IMF Articles arises directly from section 2(b) of the IMF Article VIII:

'Exchange contracts which involve the currency of any member and which are contrary to the exchange control regulations of that member maintained or imposed consistently with this Agreement shall be unenforceable in the territories of any member. In addition, members may, by mutual accord, cooperate in measures for the purpose of making the exchange control regulations of either member more effective, provided that such measures and regulations are consistent with this Agreement.'

In dualist states, it is not for the courts to take notice of a treaty Article, unless the legislative branch has incorporated this Article into the municipal law. In South Africa (a founder member), despite a clear public international law obligation,261 the IMF Article VIII 2(b) has not been incorporated.262 This seems the only logical explanation to the fact that none of the IMF Articles have been referred to in any of the reported South African cases — not even after the well known and persuasive English case United City Merchants (Investments) Ltd and others v Royal Bank of Canada and others [1982] 2 All ER 720 HL.263

Correspondingly, the South African case law seems to generally reflect the common law position:

260 See, for example, Schwab (1985), p. 969, n. 9. After retirement, Sir Joseph Gold became Senior Consultant to the IMF.

261 Article VIII 1 states: 'In addition to the obligations assumed under other articles of this Agreement, each member undertakes the obligations set out in this Article.'

262 The writer's question in respect of this somewhat strange situation to the South African Reserve Bank received the condescending reply: 'The IMF Articles have been incorporated'. A further request to disclose the identity of the corresponding legislative act never received a reply.

Also the South African double currency (commercial and fiscal) arrangement of not so long ago may have directly violated the IMF Article VIII 3: 'No member shall engage in, or permit any of its fiscal agencies ... to engage in, any discriminatory currency arrangements or multiple currency practices except as authorised under this Agreement or approved by the Fund. ...'

263 Despite no longer having any binding effect, English cases can still be persuasive in South African courts. The United City Merchants case has been considered (Phillips and Another v Standard Bank of South Africa Ltd and Others 1985 (3) SA 301 [W]) and applied (Loomcraft Fabrics CC v Nedbank Ltd and Another 1996 (1) SA 812 (A)) in South Africa — but only its documentary credit aspect.
Domestic courts normally analyze the applicability of any foreign law according to their conflict of laws rules. Courts must decide first, whether foreign jurisdiction has sufficient contacts with the transaction to warrant applying their law, and second if the foreign law to be applied violates forum public policy. Prior to the enactment of the [International Monetary] Fund Agreement, courts applying this analysis often refused to enforce exchange regulations of other countries. In general, courts adhered to the principle that exchange control regulations were incapable of international recognition. Application of exchange controls was often avoided by findings that the regulations were penal or confiscatory, or that the law of the forum applied.264

'The general position [is] that national courts when confronted with a dispute with an international dimension as between private parties will not normally as a matter of national public policy take cognisance of or enforce the public law (i.e., the law that serves the State's economic or political purposes) of another State. Thus, courts following the Anglo-American tradition normally do not enforce the exchange control, revenue, or criminal legislation of another foreign State. National courts on the other hand do recognise foreign law which regulates private relationships between parties. Article VIII(2)(b) puts a gloss on the general practice by preventing the ground of public policy from stopping a party enforcing an exchange contract under foreign exchange control regulations enacted consistently with the IMF Articles. An unenforceable contract however is not to be confused with a void contract.265

The traditional view of courts of most countries has been that exchange controls, like tax and penal laws, are enforceable only in the territory of the sovereign that issued them. Even if the normal conflict of laws rules of Xandia would point to application of Patria's law to a particular transaction, say on issues of whether a contract had been concluded, or whether the obligation had been discharged, Patria's exchange controls would not be given effect — or usually even recognized as a defense — on the grounds that to do so would be against Xandia's public policy or ordre public. This would be so even if Xandia had exchange controls similar to those of Patria.266

266 Lowenfeld (1984), p. 323, §10.11 A number of related important American (New York), German and English cases are reproduced and analysed on pp. 323–349 and 365–377.
On pp. 329–330, Lowenfeld reproduces the following statement from the judgment of Jasen J in *Banco Frances e Brasileiro S.A. v. John Doe No 1 et. al.*:

'It is an old chestnut in conflict of laws that one State does not enforce the revenue laws of another. By way of rationale, an analogy is drawn to foreign penal laws, extra state enforcement of which is denied to deny recognition to foreign tax assessments, judicially expanded also to include foreign currency exchange regulations. The analogy ... traces from Lord Mansfield's now famous dictum in an international smuggling case that "no country ever takes notice of the revenue laws of another." (Holman v. Johnson, 1 Cowp. 341, 343.) But the modern analogy of the revenue law rule is justifiable neither precedentially nor analytically.'

In a sense, following the generally accepted international customary law in relation to fiscal regulation and management has made the South African foreign exchange related municipal law look somewhat insular.

**Insular case law in South Africa.**

The above international custom is reflected in the learned arguments and findings of the following appellate case. In *Standard Bank of South Africa Ltd and Another v Ocean Commodities Inc and Others* 1983 (1) SA 276 (AD), it was suggested by Kentridge SC on behalf of the respondents that '[a] Court will not permit a foreign State to exercise its sovereignty in this country. ... There is a considerable difference between taking notice of foreign exchange control laws, and giving assistance in enforcing them, whether directly or indirectly.' It was conceded by Shaw QC on behalf of the appellants 'that, in general, laws operate only within the territory of the state enforcing those laws. If, however, the proper law of a contract governing the matter is the law of another country, the contract will operate subject to that law.' Shaw QC submitted, on the (severely criticised and probably *in casu* no longer relevant) authority of the English case *Kahler v Midland Bank* 1950 AC 24 that the Rhodesian 'Exchange Control regulations ... [as the applicable foreign law, were] not confiscatory or revenue laws which will

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268 At 282C-D.

269 At 280A.
not be enforced.\textsuperscript{270} During the hearings, however, 'Mr Shaw conceded that he could not ask the Court to enforce the Rhodesian ECR by giving them extra-territorial operation in South Africa. This concession was obviously correctly made.\textsuperscript{271}

Corbett JA did not base his evaluation on the IMF Articles, but on his finding that the case turned on questions of property situated in South Africa. Nevertheless, Corbett JA considered what would have been the consequence 'if the claim were classified as one relating to contract, and the proper law of the contract were held to be Rhodesian law'.\textsuperscript{272} He did 'not think that the relevant aspect of the Rhodesian law, viz the ECR, had been properly proved. The regulations themselves were never placed before the Court.\textsuperscript{273} Corbett JA summarised the necessary procedure and held as follows:

> The content and effect of a foreign law is a question of fact and must be proved (Schlesinger \textit{v} Commissioner of Inland Revenue 1964 (3) SA 389 (A) at 396G). Proof is usually furnished by the evidence of properly qualified persons who have an expert knowledge of the law in question. Where the relevant foreign law is statutory in nature, then, in my opinion, it is the right and duty of the Court itself to examine the statute and to determine the meaning and effect thereof in the light of the expert testimony, especially where such testimony is of a conflicting nature. ... It follows that the party relying on the foreign statute should, generally speaking, place that statute before the court. Accordingly, the argument based on the alleged proper law of the contract cannot succeed.\textsuperscript{274}

The above can only be correct because the IMF Article VIII 2(b) was not incorporated into our law. Otherwise, it would have had a direct bearing\textsuperscript{275} on the contractual aspect and could not have been ignored by Corbett JA. Under Article VIII 2(b), it would have been more difficult\textsuperscript{276} to reach the same result, which would have required the enforcement in South Africa (a member of the IMF) of a contract that was vigorously

\textsuperscript{270} At 279H–280A.
\textsuperscript{271} In the words of Corbett JA at 293H.
\textsuperscript{272} At 294D.
\textsuperscript{273} At 294E.
\textsuperscript{274} At 294G–295A.
\textsuperscript{275} In principle statutorily.
\textsuperscript{276} But by no means impossible.
argued to be contrary to the Exchange Control Regulations of Rhodesia (another member\textsuperscript{277} of the IMF).

In reality, the complete \textit{evasion} the IMF Article VIII 2(b) in South African courts leads to the same or similar results as the more sophisticated \textit{avoidance} of the IMF Article VIII 2(b) in such New York cases as \textit{Southwestern Shipping corp. v. National City Bank of New York},\textsuperscript{278} \textit{J. Zeevi \\& sons, Ltd. v. Grindlays Bank (Uganda)},\textsuperscript{279} \textit{Libra Bank Ltd. v Banco Nacional de Costa Rica},\textsuperscript{280} or in a Dutch case \textit{Indonesian Corp. P.T. Escomptobank v. N.V. Assurantie Maatschappij de Nederlanden van 1845}.\textsuperscript{281} These cases have been thoroughly analysed by Schwab (1985).

In \textit{Henry v Branfield} 1996 (1) SA 244 (D), Levinsohn J, it seems, directed the South African law in the direction of the IMF Article VIII 2(b). However, it must be borne in mind, firstly, that Levinsohn J did not mention either Article VIII 2(b), the IMF, or any other international treaty. Secondly, \textit{Henry v Branfield} was decided in 1993, that is before the South African Constitution of 1996,\textsuperscript{282} which would have explicitly required a Court to 'consider' international law. Levinsohn J found the following facts to have been proven on a balance of probability:

1. That during April 1990 an oral contract was concluded and its terms were as follows:
   
   (a) The plaintiff would cause an amount of 380 000 Zimbabwean dollars to be handed over to Kevin Chambers in cash.
   
   (b) Within six months of the handing over of such cash the defendant would pay by cheque in South African rands an amount equal to 90\% of the face value of the said amount of Zimbabwean dollars so handed over

2. The plaintiff performed her obligations in terms of the contract inasmuch as she caused cash to be handed over to Kevin Chambers.

\textsuperscript{277} Changing the name from Rhodesia to Zimbabwe did not change the state, or its international rights and duties.


\textsuperscript{280} 570 F. Supp. 870 (S.D.N.Y. 1983).


\textsuperscript{282} And before the Interim Constitution of 1994.
3. Kevin Chambers was the appointed agent of the defendant and delivery of the money to him was equivalent to delivery to the defendant.

4. The defendant failed within the six-months period to make payment to the plaintiff notwithstanding several demands that he do so.

The principal thrust of the defendant's case is that this Court should refuse to enforce the contract *in casu* because it is an agreement to contravene both the Zimbabwean and the South African Exchange Control Regulations.

During argument both counsel appeared to assume that the proper law of the alleged contract was South African law. There was no suggestion that Zimbabwean law would be applicable, despite the fact that an integral part of the contract in question fell to be performed in that country. It seems to me that there are a number of factors which point to the conclusion that the parties intended South African law to govern the agreement. These are, firstly, that both the plaintiff and the defendant were at the time residents in South Africa; secondly that the contract was entered into at Amanzimtoti [near Durban in South Africa]; and, thirdly, that the final payment was to be made in Amanzimtoti. I think it is fair to say that in all circumstances the country that is most closely connected with the parties and the agreement is South Africa.283

The above argument about the applicable law would not have been very important if the IMF Article VIII 2(b) had been incorporated into our law. Because, then, also South African law would generally not enforce a contract that violated Zimbabwean law.284 Levinsohn J found that the sale of Zimbabwean currency by the plaintiff to the defendant for South African rands was "tainted with illegality, inasmuch as the provisions of s 2(1) of the [South African] Exchange Control Regulations would be contravened."285 Of course, it does not follow automatically that a contract is void and of no effect merely because it leads to a performance which is prohibited by a statute. In *Metro Western Cape (Pty) Ltd v Ross* 1986 (3) SA 181 (AD), Boshoff JA explained as follows:

'It is a principle of our law that a thing done contrary to the direct prohibition of the law is generally void and of no effect; the mere prohibition operates to nullify the act: *Schierhout v Minister of Justice* 1926 AD 99 at 109. ...'

283 At 249A-D.

284 It is submitted that this determination would be rebuttable on the basis that the exchange control regulations of an IMF member state would have to be consistent with the IMF Agreement as a whole in order to merit the support of another IMF member state — in conflict with the customary international legal position.

285 At 250B.
As a general rule a contract impliedly prohibited by statute is void and unenforceable but this rule is not inflexible or inexorable. Although a contract is in violation of a statute it will not be declared void unless such was the intention of the Legislature and this is nonetheless the rule in the case of a contract in violation of a statute which imposes a criminal sanction. The legislative intent not to render void a contract may be inferred from general rules of interpretation. Each case must be dealt with in the light of its own language, scope and object and the consequences in relation to justice and convenience of adopting one view rather than the other.²⁸⁶

Boshoff JA then referred to *Standard Bank v Estate Van Rhyn* 1925 AD 266, where Solomon JA at 274 stated the position as follows:

‘[W]hat we have to get at is the intention of the Legislature, and, if we are satisfied in any case that the Legislature did not intend to render the act invalid, we should not be justified in holding that it was. As *Voet* (1.3.16) puts it — “but that which is done contrary to law is not *ipso jure* null and void, where the law is content with a penalty laid down against those who contravene it”. Then after giving some instances in illustration of this principle, he proceeds: “The reason of all this I take to be that in these and the like cases greater inconveniences and impropriety would result from the rescission of what was done, than would follow the act itself done contrary to the law.”’

Boshoff JA concluded that “[t]he intention of the Legislature must be ascertained from the statute as a whole and no single consideration, however important it may seem to be, is necessarily conclusive.”²⁸⁷

Specifically for revenue related statutes, Innes CJ stated in *McLoughlin NO v Turner* 1921 AD 537 at 544:

‘This is a revenue statute and it is a well recognised rule of construction that the mere imposition of a penalty for the purpose of protecting the Revenue does not invalidate the relative transaction ... But, of course, the Legislature may prohibit or invalidate the transaction even where the sole object is to protect the Revenue. And if that intention is clear effect must be given to it. But the literal meaning of the language used is not always decisive on the point.’

Now, returning to *Henry v Branfield*, Levinsohn J decided at 250C:

‘Applying the principles set forth by Corbett AJA (as he then was) in *Swart v Smuts* 1971 (1) SA 819 (A) at 829–30, I am satisfied, having regard to the peremptory nature of the prohibition set forth in this subsection²⁸⁸, that the

²⁸⁶ At 188A–H.

²⁸⁷ At 189A.

²⁸⁸ Section 2(1) of the Exchange Control Regulations of 1961.
Legislature not only intended that a contravention should be visited by criminal sanction but also that the very agreement concluded would be regarded as a nullity. (See also *Barclays National Bank v Brownlee* 1981 (3) SA 579 (D) at 582–4.)

Section 2(1) of the Exchange Control Regulations of 1961 was, and still is, as follows:

'Except with permission granted by the Treasury, and in accordance with such conditions as the Treasury may impose no person other than an authorised dealer shall buy or borrow any foreign currency or any gold from, or sell or lend any foreign currency or any gold to any person not being an authorised dealer.'

This decision has been severely criticised by Professor Carole Lewis (1996):

'Levinsohn J not only failed to apply the tests that our courts have laid down for determining the validity of a prohibited transaction (see *Standard Bank v Estate Van Rhyn* 1925 AD 266 at 274–5, *Pottie v Kotze* 1954 (3) SA 719 (A) at 726–7, and *Metro Western Cape (Pty) Ltd v Ross* 1986 (3) SA 181 (A)) but misconstrued a case by which it was bound, and which had come to the opposite conclusion — *Barclays National Bank Ltd v Brownlee* 1981 (3) SA 579 (D). The court in *Brownlee* held that a contract concluded in contravention of exchange control regulations was enforceable, despite the prohibition, and the criminal sanction which it attracted. To hold otherwise, said Kriek J, would result in inconvenience and impropriety (at 584H in fine). The attainment of the objects of the regulations did not require that contracts in contravention be regarded as void (at 584E–F). Levinsohn J was thus mistaken in citing *Brownlee* in support of his conclusion in *Henry* (at 250C–D).

... The decision is illogical, contrary to authority, and unjust.

It might be helpful to look at Professor Lewis's three objections individually.

Firstly, was the finding of Levinsohn J 'illogical'? Professor Lewis gave no logical explanation for her statement to that effect and the present writer cannot find any outstanding reason for this suggestion.

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289 As she then was. Now she is an Acting Judge in the Supreme Court of Appeal.

290 At p. 206.

291 Respectfully, there are reported judgments that are very weak in terms of logic and this has been implied in the analysis of some documentary credit related cases above. But the lack of logic is not a sufficient ground to consider a decision *per incuriam*. 
After all, many if not most difficult legal disputes are difficult precisely because all mature law systems allocate rights and duties to persons in an often conflicting way. There is no universal logic that can satisfy conflicting rights. The courts weigh and balance these rights and duties somehow. It does not seem likely that Lewis AJA would label her colleagues on the Bench openly illogical only because her judgment\textsuperscript{292} is conflicting with that of the majority.

Secondly, was the finding of Levinsohn J 'contrary to authority'? Levinsohn J clearly and unmistakably stated that he '[applied] the principles set forth by [the unanimous decision of the appellate Division] in \textit{Swart v Smuts} 1971 (1) SA 819 (A) at 829–30, [and he was] satisfied ... that the Legislature not only intended that a contravention should be visited by criminal sanction but also that the very agreement concluded would be regarded as a nullity.' Professor Lewis ignores this authority and instead lists \textit{Standard Bank v Estate Van Rhyn} 1925 AD 266 and \textit{Pottie v Kotze} 1954 (3) SA 719 (A). The Afrikaans text of the judgment of Corbett AJA in \textit{Swart v Smuts} incorporates the relevant statements in both of those earlier authorities.\textsuperscript{293} In \textit{Metro Western Cape (Pty) Ltd v Ross} 1986 (3) SA 181 (A), there does not seem to be anything on law that is not in the other two authorities, or in the thorough analysis of Corbett AJA in \textit{Swart v Smuts} 1971(1) SA 819 (A).

It is perhaps unfortunate that the report of Levinsohn J is as concise as it is. Law students — and professors — would have benefited from a more elaborate and detailed justification of this learned decision. There seems to have been a possibility that Branfield might have misled Dean Henry 'at the offices of Old Mutual in Amanzimtoti\textsuperscript{294} to believe that he (Branfield) was in the position of an authorised dealer. This does not affect the impression that the plaintiff (Dean Henry's mother) knowingly violated Zimbabwean law, which is irrelevant in the present context, but it does indicate that she may not have been aware of violating South African law and had no reason to know that she should have approached (another) authorised dealer for information and

\textsuperscript{292} In \textit{Cash Converters Southern Africa (Pty) Ltd v Rosebud Western Province Franchise (Pty) Ltd} 2002 (SCA) [Wits Law School website].

\textsuperscript{293} Kri:k J relied heavily on and quoted extensively from the same authority in \textit{Barklays National Bank Ltd v Brownlee} 1981 (3) SA 579 (D).

\textsuperscript{294} At 247J-1 in \textit{Henry v Branfield}.
permission\textsuperscript{295} for the contemplated exchange. The Exchange Control Rules and Regulations do not use the peremptory 'shall' or 'must', but rather the advisory 'should apply to the Exchange Control'. Even if the contract was tainted with South African illegality because Branfield either failed to apply for permission or failed to disclose that he did not have sufficient authority, Henry might have been worthy of benefitting from the 'inconvenience and impropriety' argument of good authority in her favour?\textsuperscript{296}

There might be another argument in Henry's favour, which merits a brief consideration. The Zimbabwean and South African currencies were not exchanged in the same jurisdiction and there is no apparent reason to assume that either of these sums of money were to leave their respective states. The deal between Henry and Branfield could be construed as consisting of two linked contracts: one for transfer of ownership in the sum of 386 000 Zimbabwean dollars in Zimbabwe to Branfield and the other for transfer of ownership in a related determinable sum of South African rands in South Africa to the defendant and one of her sons. Neither of these two transfers of property are \textit{prima facie} in any violation of South African law and the respective contractual promises do not violate any South African law either. It is not clear how the public interest of either state would be affected by one person owning a certain sum of money instead of another — unless they have different property rights in respect of that sum of money. Having different rights is discrimination, which may or may not be justifiable. Even if the contract is not split in two, the essential element was one of exchange of a property situate in Zimbabwe for another property situate in South Africa.

In \textit{Terblanche v Archdeacon} 1979 (3) SA 201 (TPD) Philips AJ held 'that the contract between the plaintiff and the defendant was valid and

\textsuperscript{295} Orders and Rules under the Exchange Control Regulations (as published in Government Notice R1112 of 1 December 1961 and amended up to Government Notice R.791 in Government Gazette No. 18970 of 5 June 1998), paragraph 10.(a):

'Persons who desire information or advice on exchange or currency matters governed by the regulations or who require approval or permission in respect of exchange, currency or gold transactions so governed, should apply to the Exchange Control through their bankers in the Republic or, if they have no such bankers, through one of the banks referred to in paragraph 3 hereof.'

\textsuperscript{296} As Professor Lewis seems to suggest in a brusque way.
... enforceable297 because ‘the distinction between “payment”298 and the transfer or acquisition of property is one clearly drawn and spelled out in the regulations themselves. Therefore the [Exchange Control Regulations ... cannot affect the contract299 of transfer and acquisition of property.

This case differs from Henry v Branfield substantively only in the fact that, here, immovable properties300 were to be exchanged, whereas in the latter, two movable properties carrying expectations were to be exchanged. It seems strange to say that Henry should have exchanged her immovable property in Zimbabwe directly301 for a house in Amanzimtoti to have a valid claim against Branfield. If one is good then what purpose is served by not holding the other to be just as good?

The comparison between Henry v Branfield and Terblanche v Archdeacon suggests that Zimbabweans wishing to relocate to South Africa should first put all their wealth in Zimbabwe into immovable property and then exchange it for an immovable property in South Africa. They should see to it that Witwatersrand Local Division has jurisdiction for predictability of enforcement of this exchange. They should avoid Durban jurisdiction because Terblanche v Archdeacon is not binding in Durban and Henry v Branfield may have adverse precedential effect there.

In 1987, subsequent to Terblanche v Archdeacon, the Currency and Exchanges Act 9 of 1933 was amended to empower the ‘Governor-General’ to broaden the scope of Exchange Control Regulations. Paragraph (b), which was added to section 9(2), states that ‘any regulation contemplated in paragraph (a) may provide for — (i) the blocking, attachment and obtaining of interdicts ... by the Treasury and the forfeiture and disposal by the Treasury of any money or goods referred to or defined in the regulations or any money or goods into which such money or goods have been transformed by any person ...’.

Apart from gold, no other goods have yet been included by the Exchange Control Regulations in the broadened ambit of section 9 of the Currency and Exchanges Act.

297 At 206H.
298 In the narrow sense as Gubbay JA (as he then was) explains in S v Harvey and Another 1987 (3) SA 40 (ZSC) at 43D, with reference to Terblanche v Archdeacon.
299 At 206G.
300 A farm in Zimbabwe and a farm in South Africa.
The allegation, in respect of Levinsohn J having misconstrued *Barklays National Bank Ltd v Brownlee* 1981 (3) SA 579 (D), seems to be wrong. The *Brownlee* case, apart from repeating the contractual validity tests approved by the Appellate Division, has no binding effect on the facts of *Henry v Branfield*. While Levinsohn J dealt with regulation 2, Kriek J in the *Brownlee* case dealt with regulation 3. While Levinsohn J found the only (principal) contract to be void, Kriek J upheld the validity of a *(prima facie)* good principal contract despite the (potential) invalidity of a related but subsidiary contract:

7. There may well be agreements or transactions which are covered by these regulations which will be held to be void if their provisions are not complied with. I am, however, concerned only with the type of agreement envisaged in reg 3 (1) (e), i.e. one in which A makes a loan or grants credit to B in the Republic, and, as security for the repayment of the loan or credit, relies on a security, guarantee or undertaking furnished by C who is resident outside the Republic. The money is payable by A to B in the Republic and is repayable by B to A in the Republic. The only "foreign" element is introduced by C being resident outside the Republic, and his is only a subsidiary obligation to pay A if B fails to do so. It is to be noted that, save for sub-reg (b) *bis*, no provision of reg 3 prohibits money being brought into the Republic, and reg 3 (1) (b) *bis* only prohibits a person from taking or sending South African bank-notes into the Republic without the necessary permission or exemption. If, therefore, C becomes obliged to pay A and he wishes to pay with South African bank-notes, he can do so provided he gets the necessary permission or exemption. If such permission or exemption is granted, no object of the regulation is frustrated. If it is refused and he nevertheless pays A in South African bank-notes, he contravenes reg 3 (1) (b) *bis*, and becomes liable to the penalties prescribed by reg 22.

Against the background of what I have said above, I do not consider that in relation to the type of agreement dealt with in reg 3 (1) (e) the attainment of the objects of the regulations requires the avoidance of such agreements entered into without the necessary permission or exemption.\(^{303}\)

Note that Kriek J, did not have to make a finding in respect of the validity or invalidity of the subsidiary contract of suretyship with the

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\(^{301}\) As opposed to first exchanging her immovable property for money.

\(^{302}\) This was pleaded by the plaintiff, at 251H–I.

\(^{303}\) At 584A–E in *Barklays National Bank Ltd v Brownlee* 1981 (3) SA 579 (D).
foreign resident. This question did not arise in that case and the related explanations in the above quote are *obiter*.

Thirdly, was the finding of Levinsohn J 'unjust'? It is submitted with respect — yes, because the Exchange Control Regulations are unjust.304 Professor Lewis gives an indication, why she thought that Levinsohn J could be blamed for this injustice, by suggesting that the court accepted too lightly the defendant's allegation of not having received the money — hence not having been enriched.305 Levinsohn J held that the defendant's agent had been handed the money and this constituted the entire delivery from the plaintiff to the defendant.306

It is, however, unclear why the Court then preoccupied itself with an ostensible subsequent loss. Whether the defendant eventually lost his money due to an unreliable agent of his own choice, or merely hid it somewhere in Zimbabwe, should not be relevant in the present dispute between Henry and Branfield. The defendant became the owner of this amount of money307 and he may have potent legal remedies for its recovery later — see the decision of the Supreme Court of Appeal in *Vereins- und Westbank AG v Veren Investments and Others* 2002 (SCA) [Wits Law School web-site] and the discussion in section 6 of Chapter III. The enrichment, or lack thereof, was not in the *ratio decidendi* for the validity of the contract. Nevertheless, it is submitted, there was factual ground for 'finding that the defendant [a]d been unjustly enriched for the purposes of relaxing the *par delictum* rule.309

No comity in revenue matters.

Levinsohn J considered the possibility that 'the foregoing conclusion [may be] incorrect and the agreement in its terms does not constitute a breach of the South African Exchange Control Regulations' and referred to the defendant's 'alternative argument in regard to the

304 They may now be (partially) unconstitutional.
305 At p. 206.
306 At 253E.
307 Because of the abstract transfer of property in South Africa, and probably also in Zimbabwe.
308 At 253H.
309 At 253H–I.
illegality of the agreement. The corresponding alternative judgment led to the same finding that the contract was illegal and unenforceable.

It is submitted, with respect, that the Court did not distinguish sufficiently between foreign law in general and foreign law that relates to revenue in particular. This distinction is present in the authority that Levinsohn J relies on. At 250H–J, the following passage was reproduced from the minority judgment of a single Law Lord, Viscount Simonds, in *Regazzoni v K C Sethia (1944) Ltd* [1957] 3 All ER 286 (HL):

'It can hardly be regarded as a matter of comity that the Courts of this country will not entertain a suit by a foreign State to enforce its revenue laws. It is, on the other hand, nothing else than comity which has influenced our Courts to refuse as a matter of public policy to enforce, or to award damages for the breach of, a contract which involves the violation of foreign law on foreign soil, and it is the limits of this principle that we have to examine.'

To this, the following passage must be added to avoid any doubt:

'The cases relating to the breach of a revenue law were not germane to the issue. Nor are they germane to this appeal.'

Levinsohn J was 'persuaded that the principle enunciated in *Regazzoni's* case [was] a sound and salutary one and ought to be adopted and applied in South African Courts. It is based on public policy and comity of nations which dictates that a court ought not to

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310 At 250D.

311 At 250D–251D.

312 At 289I–290A. The emphasis is added. The same principle applies generally in cases where the suit to enforce foreign revenue laws is brought by private persons. Viscount Simonds referred to this distinction at 289F–290D and 292C–E, *obiter*. See also the corresponding discussions by Schwab (1985), Qureshi (1999) and Lowenfeld (1984) as cited above.

313 At 292H, per Viscount Simonds.

314 It is important to note that none of the other four Lords concurred in the judgment of Viscount Simonds. Lord Reid, with Lord Cohen concurring, objected to this so-called principle by saying (at 294H) that 'this Indian law is one of which we ought not to take notice', and dismissed the appeal on other grounds. Lord Somervell of Harrow cited with approval the statement of Lord Campbell in *Emperor of Austria v Day & Kosuth* (11) ((1861), 3 De G.F&J. 217 at p. 241) that ' "revenue laws" have always been made the exception'. Also he seems to have dismissed the appeal on other grounds than Viscount Simonds.

315 Comity is generally considered to be a public international law principle, of no direct consequence to private parties under municipal laws.
enforce contracts involving the perpetration of illegal acts in a foreign friendly country ... There is not much wrong with the principle, except that Levinsohn J overlooked the fact that the enunciated common law principle unmistakably excluded revenue related foreign laws from the favour of English public policy considerations and that South Africa has its own independent and sovereign public policy. There may be merit in South Africa following English public policy for reasons of unity, but not necessarily so. Forsyth (1996) explains:

This goal of uniformity of decision wherever a matter is litigated is deeply ingrained in our subject from the days of Bartolus, through to Paul Voet and von Savigny.

In Jones v Krog 1995 (1) SA 677 (A), Corbett CJ favoured uniformity in legal rules when

'they conform broadly to such authority as there is in our law and to the legal position in the vast majority of the foreign jurisdictions to which I have referred. As to the latter, it seems to me that there is merit in our legal system falling into line, both from a practical point of view and in the general interests of comity.'

Regazzoni's case did not turn on revenue — Henry v Branfield did. This writer cannot find good support for either: (a) that a South African Court ought not to enforce contracts 'which adversely affect [a

See, for example, Koppenol-Laforce (1996) at p. 114:

'It is not so much a matter of comity of nations that a court does not simply apply its own law, it is rather a wish to do justice to the parties involved in a private conflict. Comity of nations is an expression that belongs to the field of public international law. It is about how sovereign states should deal with each other.'

Forsyth (1996) states the position similarly at p. 59:

'If it ought to be expressly noted that the sovereign orders the application of foreign law, not because of courtesy or respect for foreign sovereigns but in order that he may do justice to the private litigants before his courts. It is unfortunate that sometimes states (South Africa included) have introduced the concept of reciprocity into private international law. They say in effect: I will apply your law, if in like circumstances you will apply mine. At the level of diplomacy and relationships between states, such a principle is not remarkable. But in the field of private international law it is bizarre: in effect a sovereign denies justice to private litigants in his courts, in the hope (probably vain) that this will induce a foreign sovereign to grant justice to other private litigants in his courts!'

316 At 251C.
317 At p. 60.
318 At 692H, the emphasis is added.
TRADING WITH EXPECTATIONS

foreign friendly) country's economy or its balance of payments' and (b) that therefore 'the contract [between Henry and Branfield] was illegal and unenforceable. The first is (at least in some respects) contrary to the rather uniform common law position and could only have been justified on the basis of the IMF Articles, especially VIII 2 (b).

In respect of the second, there does not seem to have been any expert witness that quantified the damage done to either economy by the exchange of property in the contract between Henry and Branfield. Until it is proven otherwise, the present writer is far from convinced that a general liberalisation of international mobility of people, property, expectations and ideas causes more damage than benefits to the respective economies. The contemplated exchange did not adversely affect the balance of payments of either state, because no money or any other property crossed the border of either state. If Branfield subsequently exchanged the Zimbabwean dollars for any other currency in Zimbabwe, then this would be accounted for on the balance of payments and would have competed for the foreign reserves of Zimbabwe. However, this hypothetical transaction has no legal connection whatsoever to the contract between the litigants and the subsequent damage, or advantage, to some balances of payment cannot be blamed on this contract.

The alternative judgment of Levinsohn J goes further than what seems to be generally understood as necessary under the IMF Article VIII 2 (b). This Article merely declares certain contracts to be 'unenforceable in the territories of any member'. It does not follow that this contract is void, nullity, or illegal. In United City Merchants

319 At 251D.
320 However, an international treaty provision, especially one that is violated by many member states, has to be incorporated into the municipal law by a legislative act before a court can take note of it. This position, it is submitted, is not unconstitutional in South Africa.
321 There are exceptions, of course. And there can be legitimate reasons for sacrificing economic benefits to other social 'values'.
322 Taking the dollars out of Zimbabwe may also be captured by the balance of payment accountants.
323 The 'balance of payments' (BOP) is by definition always balanced by the double entry accounting convention. Therefore, strictly speaking, nothing at all can affect the balance of payments of a state as a whole — neither positively nor negatively. The Court should have indicated which part of the BOP was considered to be adversely affected. Without being sufficiently specific, the Court's statement remains meaningless.
(Investments) Ltd and others v Royal Bank of Canada and others [1982] 2 All ER 720 HL, Lord Diplock held in a unanimous decision as follows:

'If in the course of the hearing of an action the court becomes aware that the contract on which a party is suing is one that this country has accepted an international obligation to treat as unenforceable, the court must take the point itself, even though the defendant has not pleaded it, and must refuse to lend its aid to enforce the contract. But this does not have the effect of making an exchange contract that is contrary to the exchange control regulations of a member state other than the United Kingdom into a contract that is "illegal" under English law or render acts undertaken in this country in performance of such a contract unlawful. ... it is unenforceable by the courts and nothing more.'324

324 At 729g. The declaration of Lord Diplock, that 'the court must take the point itself', refers only to the situation when the litigants fail to notice this point. In the context, it did not imply bypassing the necessarily preceding legislative act of incorporation of the 'international obligation' in dualist legal systems, such as in South Africa.
V Conclusion

Societies have, since time immemorial, traded real goods and services for expectations of goods and services in some future. For orderly and predictable economic activities, these expectations have been associated with tangible and, lately, intangible property — which is generally called money.

The quantity of money is measured in relation to a legislated unit of money, such as rand in South Africa, Euro in France, Germany, Italy, Spain and most other European Union member states and dollar in the United States of America. Most states have a single unit but South Africa has several: Protea, Florin, Gold Rand, Silver Rand and others in addition to the nominalistic rand. The relationship or equivalence of these precious metal coins to the fiat rand is uncertain.¹

Clearly, expectations cannot replace the desired or needed goods and services. Expectations do not determine present material wellbeing. The ability of a unit of money to buy material wealth in the form of goods and services is determined primarily by the total quantity of money and total quantity of goods and services that are available to be exchanged at any given time. Not all existing money in a state is used for exchange simultaneously, some has to be kept for future anticipated or unanticipated expenditures and some is simply in the process of being taken from one place to another. Consequently, the ability of a unit of money to buy material wealth (its purchasing power) depends also on the money turnover rate. From the crude quantity theory of money as expressed in eq. (4.4), the inverse of the transaction price — which is the purchasing power of a monetary unit — is given as \(1/P = T/(M_u)\). In words: the purchasing power of a monetary unit \((1/P)\) is proportional to the amount of traded goods and services \((T)\) and inversely proportional to

¹ Similar conclusion was reached by the General Manager of the International Banking section of the South African Reserve Bank in reply to an earlier question by the present writer. He found, after some research, that it may be practically difficult to determine the legal tender value of the above precious metal coins. (Letter of 2002-11-12 to the present writer.)
the total money supply \( (M) \) and its turnover rate \((v)\). The purchasing power of all of the money in a state is therefore given by \( M/P = T/v \).

In modern societies, the total money supply is composed of a relatively small amount of tangible money (notes and coins) and currently of about ten to twenty times more bank credit. This text has demonstrated that money in the modern legal usage refers to coins and reserve bank notes that are issued by the authority of the state and to personal rights to universally transferable bank credit that is measured in relation to the same monetary unit or units. Both are desired and needed by the public only for their ability to be associated with more or less predictably quantifiable expectations of being accepted by others in exchange for some desirable goods or services in the future.

The bank credit dominates by quantity the money supply of modern states, but it is not issued by the states. The states have attempted to regulate the amount of money, but they do not have direct control over this quantity. The states attempt to regulate the general market prices, but they have even less direct control over the price levels than over the quantity of money. Until a state obtains sufficiently direct power over each person's mind, it cannot determine the amount of expectations that these persons associate in their minds and private dealings with a unit, or a quantity of units, of the money. It seems that the states should concentrate more on avoiding the creation of false expectations than on interfering in the natural economic processes that determine the prices or the purchasing power of money.

In the South African law (and elsewhere) the legal recognition given to bank credit as money seems to have happened as an unintended side-effect to accepting cheques as delivery vehicles in the cash transfer transactions. The transfer of money has been judicially declared to have been completed without any tangible money moving from the transferor to the transferee — not necessarily even between their respective banks.

A great deal of uncertainty is caused by incorrect use of the word *payment*. Not every transfer of money is payment or component in a payment transaction. In payment of money, the law of property and the law of contract overlap and become inseparable. While the abstract transfer of property has been accepted into South African law, there can be no abstract payment. Despite significant differences, both the English and South African laws define payment as performance of a preceding *duty*. The Supreme Court of Appeal, in the *Vereins- und Westbank* case
seems to have declared an abstract transfer of ownership of money to be payment even though no preceding duty to pay was found.

As expectations do not enhance the present material wellbeing of their holder, it is irrational to hold any sum of money when others can use this money economically productively and are prepared to pay the owner of this money for its use. In other words, money can be invested profitably for both the investor and the borrower. The investor's profit, or borrower's direct cost, is called interest and is normally calculated either from a simple interest formula or from a compound interest formula. Both calculations yield identical interest in case of suitably chosen interest rates. Neither is immoral in any economic sense and is no longer illegal in the South African positive law. The last remnant of the medieval protection of a (not infrequently) guilty debtor at the expense of an innocent creditor is the in duplum rule. This rule can be particularly obnoxious under the frequently occurring conditions of a modern rampant nominalistic inflation that was unknown and could not be predicted under the early medieval metallistic doctrine of money. The influence of the in duplum rule is being limited by some very recent restrictive judgments in South Africa and in Zimbabwe.

In South Africa, the Sovereign Government has a general constitutional duty to ensure that its subjects are not deprived of property. This includes the expectations of future consumption of goods and services — the purchasing power of the rand (Protea, Silver Rand etc). In this respect, the Constitution specifically instructs in Section 224(1) that the South African Reserve Bank must 'protect the value of the currency'. The Constitution does not explain what value means nor does it give any indication against whom or against what it must be protected. The public statements of the South African Reserve Bank evidence confusion about their own constitutional raison d'etre. Their ostensibly well meant interest rate manipulation will not protect the purchasing power of the rand or eliminate its depreciation against the United States dollar. It is shown that the recent Reserve Bank policies are not protecting the value of the South African currency in any reasonable sense — least of all in terms of the publicly promised inflation rate of no greater than 6% per year. It is not clear to the present writer if this

2 The most prominent debtors were often the rulers themselves.

3 While the Zimbabwean inflation rate was above 40% per year.
failure of the Government and its Reserve Bank can be excused with external influences in the average over a few years.

Is it possible that the Constitution is demanding from the Reserve Bank something impossible? The answer is not self-evident — not least of all because of the lack of any quantifiable meaning in the demand itself.

The disastrous socio-economic experiences, in relation to competitive nominalistic monetary policies between states, in the first half of the twentieth century led to the International Monetary Fund Agreement at the close of the Second World War. The member states were obliged thereby to keep their exchange rates practically constant. This could only be done by adopting the historically much earlier existing in- and outflow controls of money for the new internationally agreed purposes. These legislative measures were generally called Exchange Control Regulations. Since late nineteen seventies these regulations have either fallen into disuse or have been repealed in most states. The South African Exchange Control Regulations are still in force despite the adoption of the floating exchange rate regime by the government.

The exchange rates are directly related to the world-wide supply and demand of the exchanged currencies. However, the quantities of the supplied and demanded currencies depend fundamentally on the price levels of the traded or tradable goods and services in the respective economies. This leads to the concept of purchasing power parity, which is most accurately reflected in the relationship between interest rates in different states and their relative foreign exchange depreciation rates.5

It is submitted that the South African Exchange Control Regulations have outlived their usefulness (if ever they had any) and are unconstitutional — at least in so far as they interfere with the South African Reserve Bank’s constitutional obligation to pursue its primary object ‘independently and without fear’. It is trite that the independent exchange rate regulation and inflation rate regulation institutions result in two strongly and very sensitively interacting control processes. The adverse effects of this economic interaction can be scientifically quantified, if adequately skilled experts were employed to spend some effort on this problem.

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4 Significant amounts of rand are traded in currency markets outside South Africa.

5 The most basic relationships have been quantified in eq. (4.54).
Seen in this light, the Exchange Control Regulations should not be interpreted extensively by the judiciary. In the main, the South African Courts have indeed applied restrictive interpretation and they have justifiably ignored the public international law obligation of the Republic to apply or recognise the Exchange Control Regulations of fellow IMF members extraterritorially. The IMF Articles have not been incorporated by the legislature into the South African municipal law.

It is suggested, that further progress in adapting private and, especially, public law for the constitutionally mandated goal of 'balanced and sustainable economic growth in the Republic' requires a derivation of realistic but not too complicated mathematical models that describe quantitatively the dynamic processes which determine the purchasing power of money. Only when these models are sufficiently simple and realistic, can one begin to design regulating systems, institutions and processes for some realistically specified purposes. Without these models, the manipulative monetary and fiscal policies, statutes and regulations have so far not been successful and reliable in any economic sense of the word.

Commercial jurisprudence can only benefit from a continued development of, and a close interaction with, the natural scientific understanding of the underlying economic processes. *Ordinary persons* want not only legally correct but also naturally just and reasonably predictable solutions to disputes that relate to expectations, value and money.
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