BANK OF ENGLAND

Speech

The five ages of (sterling) man: prospects for the UK money market

Speech given by

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There can't have been many speakers to the London Money Market Association over the years foolhardy enough to begin with the ancient Greek poet Hesiod.

As well as sometimes being described as the 'first economist', Hesiod invented the 'Five Ages of Man', which chart the seemingly-inevitable decline of humanity. With trading volumes and margins under pressure, and the legacy of the financial crisis still casting a long shadow, many in the markets are understandably concerned that the sterling money market may also be in long-term decline. But the long history of the market spans many periods of ups and downs, during which the market has repeatedly reshaped itself, drawing in new instruments and new players. Another shift may now be underway, as changes in banks' risk tolerance, regulation and central bank practices cause markets globally to re-evaluate how best to manage short-term liquidity risk. No one knows yet where this latest evolutionary phase will end up. Will the trend away from unsecured to secured transactions continue? Will the boundaries of the market widen further beyond the banks, to cover a wider range of non-banks and corporates? What new instruments will develop?

And yet, amidst all this upheaval, some things stay the same. The *fundamental* purpose of the sterling money market – to intermediate shorter-term borrowing and lending between banks, other financial institutions and corporates – is not in doubt. And that makes the market of great importance to the Bank of England – as the first stage in the transmission mechanism of monetary policy, linking our operations to activity and prices in every part of the economy. The market can also serve – where necessary – as a channel through which we can provide liquidity to the financial system in pursuit of financial stability. It is a striking fact that, even in today's depressed market conditions, if you include both bank and non-bank flows the stock of unsecured money market borrowing as a share of UK GDP is similar in scale to the stock of bills in the late 19th century, when the sterling money markets were at the height of their global powers. If you include secured transactions too, the share is significantly higher.

In the rest of this speech, I want first to use Hesiod's categorisation to pick out five ages in the development of the sterling markets with lessons for today, before turning to consider where the money market of the future might end up.

The Five Ages

Hesiod starts with the Golden Age. In this Age, Hesiod writes, men lived as if they were gods, without troubles or hard work. Few words could more aptly describe the role of the City during the 19th century, when the London money market stood at the apex of the global trading economy, a watchword for liquidity and security. As an 1858 parliamentary committee put it, "a man in Boston cannot buy a cargo of tea in Canton without getting a credit from Messrs Matheson or Messrs Baring". The confidence of the money markets is vividly illustrated by an incident in the 1860s after the Bank of England had decided to stop offering discount facilities to the City's bill brokers. The brokers did not take this lightly: Overend and

Gurney organised a run on the Bank, with firms taking it in turns to withdraw large sums in batches of £1,000 notes. When the Governor refused to give in, he found on his desk one morning an anonymous note that said "Overends can pull out every note you have, from actual knowledge the writer can inform you that with their own family assistance they can nurse *seven* millions!!"[i]

On this occasion the Bank stuck to its guns. But the experience left a lasting concern in Threadneedle Street about the risks of allowing the market too much independence. And that in time ushered in the Silver Age. In this Age, according to Hesiod, men spent most of their lives as children, cared for by their mothers.

For much of the twentieth century, but particularly during the interwar years, the Bank did indeed have a quasi-parental role in the money market. The Discount Houses' exclusive rights to trade sterling bills with the Bank gave them a privileged position, but also made them supplicants. Typical of that relationship was a meeting in September 1927 when Governor Montague Norman, determined to ensure firm control of market rates in order to maintain the Gold Standard, assembled the Houses to tell them that he was "not at all satisfied with the way the market had been conducted in the past six months". Those in the market had "allowed 3-months' rate to be affected by temporary conditions"; this "would not do and they must keep it firm and stable". He "knew how to deal with them if they didn't and could keep them in the Bank as long as he liked." Five days later the Principal of the Discount Office noted that the market "considers the Governor's remarks have helped them and that they can do as he wishes".[ii]

The closeness of the relationship did the Houses little good in the long run. As early as 1936, Norman lamented to the Lord Mayor's banquet the "sorry plight" of his "friends" in the discount market: "their unique knowledge ... is gradually disappearing. They are becoming mechanised. Their cunning is being unused". The Bank made regular efforts to shore up their position, allowing them to hold assets of increasingly dubious quality, looking the other way as they formed a cartel in the Treasury bill tender (the rate being fixed on the pavement outside the offices of Seccombe Marshall, the Bank's 'special buyer'), and effectively requiring – from 1951 to 1986 – the clearing banks to hold a proportion of their liquid assets as secured deposits with the Discount Houses: the so-called 'club money' arrangements.

But despite all of this the Discount Houses struggled to stay relevant as the financial markets moved into Hesiod's third, or Bronze, age. Bronze Age men, according to Hesiod, were 'strong, terrible and violent'; many met a nasty end.

The raw forces of capitalism that washed over the City in the early postwar era didn't go head first for the Discount Houses, which remained protected by the Bank. Instead, they went round them. From 1955, with the introduction of the local authority loan market, through the growth of the Eurodollar and wholesale interbank markets in the early 1960s and the sterling CD market in the late 1960s, a 'parallel money market'[iii] grew up beyond the reach of the Discount Houses and the clearers' cartel. Sterling interbank trading learned many of its ways from the nascent Eurodollar markets, often starting in the foreign exchange departments of

banks rather than their money market desks. Unsecured, and conducted by phone not face to face, these markets – the creation of Bronze Age man – ultimately fuelled a credit boom: as one banker put it, 'almost for the first time in the whole history of banking you found your lending business, and then scurried around for deposits.'[iv] Inevitably perhaps, that boom met its own nasty end, in the form of the Fringe Banking Crisis, which had to be saved by the Bank of England's 'lifeboat'.

Because of the way the markets developed beyond the reach of the framework for monetary control, the Bank was felt to be out of touch: "now the discount market is no longer at the centre of the money markets ... when the Bank wanted to find out about the CD market it had to hand round a circular questionnaire to the banks".[v] Shortly thereafter, the Bank's Discount Office was closed and replaced by a new Banking Supervision Department, "discarding the [Bank's] long-established notion that supervision could be conducted as a by-product of intervention in the money markets".[vi]

Hesiod's Bronze Age gives way to the Heroic Age. If there was an act of heroism in the recent history of the sterling money markets, it was carried out by those market participants and officials responsible for bringing the markets and the Bank of England's operations into the modern era. The Bank had stuck with the Discount Houses for a very long time: arguing against abolition in 1980, for example, George Blunden stated that the work of the Houses was "much more demanding and important" than just "dark-suited men in top hats out on routine money rounds".[vii] But the strains were mounting – the tiny capitalisation, and thus diminishing viability, of the Houses relative to the clearing banks left the money market vulnerable to manipulation, injecting unpredictable volatility into key short-term interest rates.

The 1990s and first half of the 2000s saw an extended series of reforms: dematerialising money market trading (which fortuitously took place shortly after £292mn of securities were stolen from a City messenger in the street); the introduction of Real Time Gross Settlement and Delivery versus Payment; the development of the gilt repo market, and the transfer of the Bank's operations to this new market, which also coincided with a decisive broadening in the range of the Bank's counterparties, sounding the final death knell of the Discount Houses; the introduction of reserves averaging and a more transparent, predictable framework for money market operations, and so on. The net impact of those reforms was a market that became increasingly deep, liquid and professional: interest rate volatility fell, volumes rose and new instruments were developed (Chart 1).

But after the Heroic Age comes Hesiod's Iron Age: the financial crisis and beyond. Iron Age men worked endless days of hard work and pain, and endured sleepless nights plagued with anxiety. The financial crisis was an enormously challenging time for everyone – not least the Bank's own Sterling Markets Framework, which had once more to be radically overhauled. But my main focus today is on what the crisis left behind – and that is often summed up using SONIA[viii] volumes, which have fallen significantly since the mid-2000s (Chart 2). SONIA is an extremely valuable measure – but it was never intended to be a proxy for all aspects of sterling money market activity. Most obviously, it does not cover repo and other secured transactions,

which make up two-thirds of the total overnight money market (Chart 3).[ix] Nor does it cover term borrowing, which is 20-25% of total unsecured business. And it measures only brokered trades – so any business done between banks directly or, more significantly, bilaterally between banks and their non-bank customers, is not captured. The increasing importance of bilateral unsecured business is powerfully illustrated by comparing SONIA to an alternative estimate of overnight unsecured sterling transactions using data from the Bank's wholesale payments system (Chart 2),[x] which has fallen back less sharply. Indeed, total unsecured overnight borrowing reported by respondents to the Bank's money market survey stood at £35bn[xi] in November 2012, dwarfing reported lending and suggesting a large and growing role for transactions with non-banks. Add together all flows, both term and overnight, both secured and unsecured, and daily turnover in the sterling money market is roughly £150bn – a very long way from the much more modest figures for unsecured overnight interbank business alone.

Of course, none of this can obscure the fact that short-term unsecured money market activity, which is key to price formation, has fallen sharply. To gauge what the future might hold, it is helpful to separate out the various causes of that decline:

- First, the process of post-crisis deleveraging means banks are no longer anything like as reliant as they were on short-term wholesale funding. The gap between the major UK banks' loans and their customer deposits fell from around £900bn in 2008 to £95bn at the end of 2012.

- Second, the suspension of reserves targets and the massive injection of central bank reserves brought about by the MPC's asset purchase programme means banks are much more likely to be able to meet their day to day payments needs from their own reserve accounts without having to go to the market.

- Third, the scope for profitable intermediation in the market has declined significantly, reflecting the twin effects of a very flat near-term yield curve, and a reduction in the amount of balance sheet capacity devoted to money market desks by most of the major firms.

- And, fourth, the combination of regulatory change and heightened concern about counterparty risk has driven a progressive refocusing away from short-term interbank unsecured markets towards repo and others forms of secured activity, a wider group of counterparties beyond traditional interbank circles, and a greater use of term funding, albeit often beyond money market tenors.

These developments are not limited to the sterling markets: unsecured money market volumes have fallen globally (Chart 4), in part reflecting a shift towards secured business (Chart 5). Staff numbers have fallen on unsecured trading desks, and credit lines have been cut back.

The Future: Iron Age No More?

In Hesiod's story the Iron Age is the end of the line. But I don't believe a similar fate awaits the money markets. Some of the factors underpinning falling turnover *will* persist, in particular the regulatory incentives encouraging greater use of secured and/or term funding. But others – including the current size of central bank balance sheets, and flat short-term yield curves – will unwind eventually. And greater risk-taking will inevitably return in time, even if the global authorities are working hard to prevent it reaching the levels seen in the immediate pre-crisis period.

What will the money markets of the future look like? Each of the Five Ages suggests a lesson. Perhaps the most important comes from the Bronze Age: markets will inevitably adjust. It would be wrong to equate the money market solely with the overnight unsecured interbank market, just as it was wrong in the past to think that the money markets would remain safely confined within the Discount House system. The money market of the future will be more heavily focused on secured rather than unsecured transactions – a return perhaps to the era before the 'parallel money markets' of the 1950s and 60s. There has already been innovation in secured markets, with the emergence of RONIA swaps in the UK and GC repo futures in the US. More will follow.

Relationships with non-bank financial firms and corporates will matter more, consistent with the likely growth in the so-called 'shadow banking' sector. And changes in regulation mean that money desks will play a broader role within banks' treasury departments, helping to source, price and risk manage liquidity (and in some cases collateral) both within firms and across an increasingly complex set of external clearing relationships. Managing liquidity actively across a wider range of different currencies will also become increasingly important, with some desks also taking on more of an investment management role. Much of this is of course already well underway – aided by the City's global reach, a legacy of the Gold and Bronze Ages.

There are lessons too for the Bank of England. The relationship between central banks and money markets is highly symbiotic. Central banks need well-functioning money markets to implement monetary policy and provide liquidity to the banking sector. And money markets need central banks. But that doesn't mean locking the markets in a darkened room until they come round to the right way of thinking, as happened in the Silver Age. That is the quickest way to lose touch with what is really happening. Our job is to try to understand how markets are changing, stay close to our key counterparties, and design operating policies that work with, rather than against, the grain of markets. That is the lesson of the Heroic Age, and it is one we are trying to carry forward now, investigating ways to make our liquidity insurance facilities more flexible and less stigmatised, and ensuring that whatever method of monetary control we return to takes account of the changes to the regulation and composition of money markets, as part of our response to Bill Winters' review of our Sterling Market Framework.[xii]

But we cannot be complacent. The Iron Age reminds us that, whatever we do and hope for, markets will still undergo periodic bouts of intense and difficult adjustment. So we need to hear from you. What will the sterling money market of the future look like? How many reserves will banks choose to hold when QE unwinds? What will the balance in the market be between unsecured and secured business, and between banks and non-banks? Will the market of the future be more or less centralised (through brokers or otherwise), and what implications will that have for price transparency? Where is the pressure for innovation most intense? Will money desks continue to shrink, or will they find new roles? And what should the most pressing policy priorities be for the Bank of England to ensure that a thriving – if changed – market emerges? We look forward to that debate.

Thank you very much.

Chart 1: Development of Sterling Money Market in the 1990s

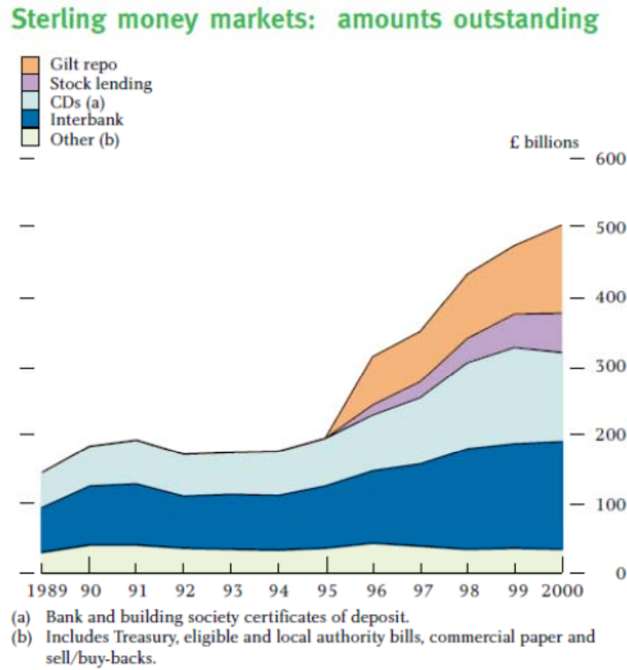
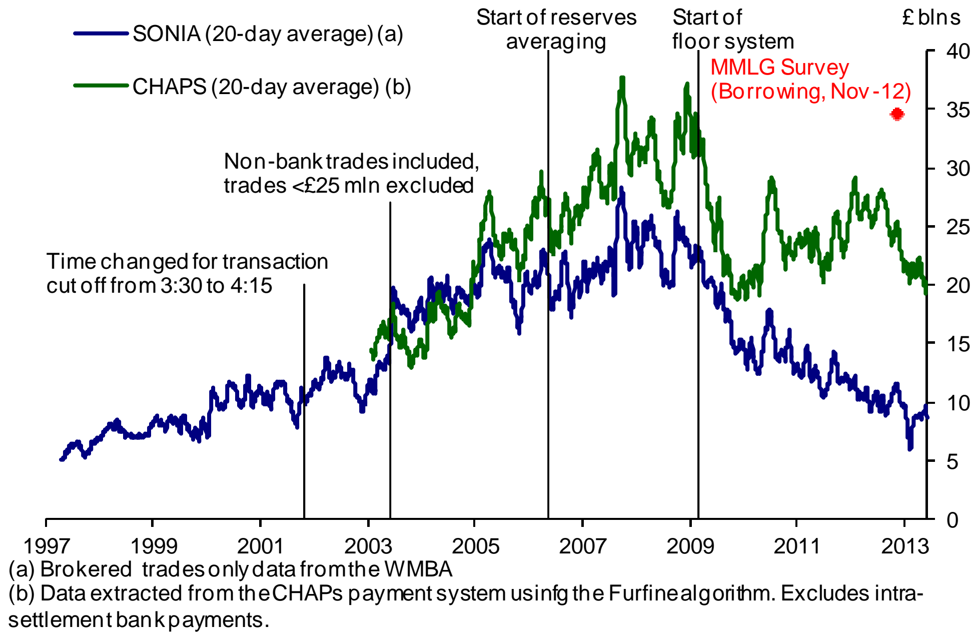


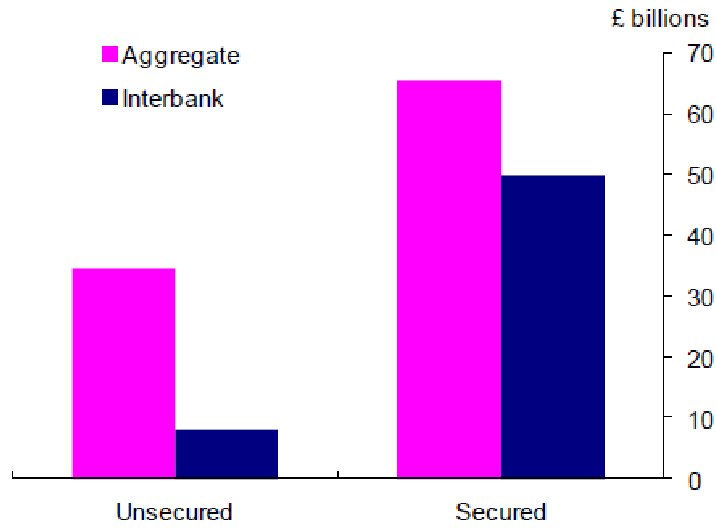
Chart 2: Unsecured overnight lending/borrowing



(a) Brokered trades only data from the WMBA

(b) Data extracted from the CHAPs payment system usinfg the Furfine algorithm. Excludes intra-settlement bank payments.

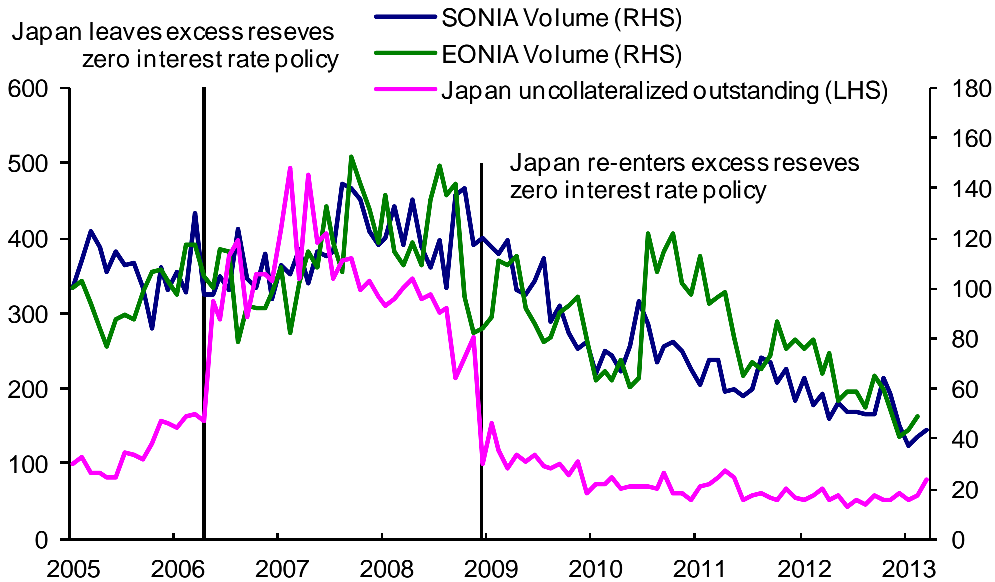
Chart 3: Average daily borrowing in the sterling overnight money market



Source: Money Market Liaison Group Money Market Survey, November 2012

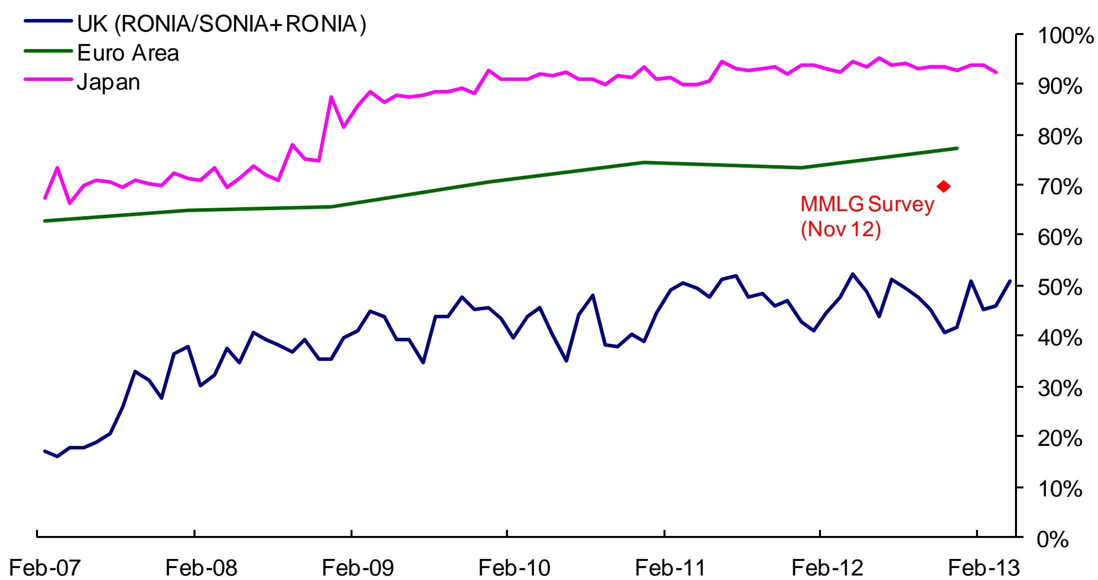
*For secured trades, interbank includes bilateral interbank trades and trades conducted via CCP.

Chart 4: Unsecured overnight money market volumes (Jan 2005 = 100)



Source: Bloomberg, Bank of Japan, and Bank calculations

Chart 5: Secured transactions as share of total (%)



(a) Data from the ECB money markets survey
Source: Bloomberg ,MMLG Sterling money markets survey and Bank calculations, Bank of Japan

Endnotes

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[i] The incident is recounted in greater detail in Sir John Clapham's history of the Bank of England, Volume 2, pages 242-6.

[ii] 'The Bank of England, 1891-1944', Richard S Sayers, page 282.

[iii] 'Parallel money markets, Volume 1: the new markets in London', by Paul Einzig.

[iv] 'A Club No More', David Kynaston, page 451.

[v] Hamish McRae, quoted in Kynaston (op cit.), page 451.

[vi] 'The Politics of Banking', Michael Moran.

[vii] Quoted in Kynaston (op cit.), page 607.

[viii] Sterling OverNight Index Average, launched in 1997 by the Wholesale Market Brokers' Association (WMBA) and calculated as the weighted average rate of all unsecured overnight sterling transactions above £25mn brokered in London by WMBA members between midnight and 4.15pm.

[ix] These data come from the Bank's Money Market Liaison Group survey, the latest results of which are available at: http://www.bankofengland.co.uk/publications/Pages/other/mmlg/default.aspx.

[x] For further information on the construction of the measure, see 'The sterling unsecured loan market during 2006–08: insights from network theory', Bank of England Working Paper no. 398, July 2010.

[xi] The gap between the survey measure and that derived from CHAPS primarily reflects the fact that the latter cannot capture 'internal' transactions settled across a single commercial bank's balance sheet.

[xii] http://www.bankofengland.co.uk/publications/Documents/news/2013/nr051_courtreviews.pdf