Getting back on track

The inflation market has had a challenging 18 months since the collapse of Lehman Brothers in September 2008. In the immediate aftermath, banks sold inflation-linked bonds that had been used to hedge swaps as part of a general reduction of balance sheets, while investors switched out of inflation-linked bonds in favour of more liquid nominal bonds, creating a significant cheapening of linkers relative to nominals. Risk *convened a panel of major inflation dealers to discuss whether the market had returned to normal*

The Panel
Mark Capleton, Head of inflation research, Société Générale Corporate & Investment Banking
Jim Hough, Head of euro inflation, Royal Bank of Scotland
Daragh McDevitt, Global head of inflation and property derivative structuring, Deutsche Bank
Dariush Mirfendereski, Head of inflation-linked trading, UBS

Risk: **Is liquidity now back to pre-Lehman levels in UK, US and euro inflation? What is driving this?**

Jim Hough (JH): Euro inflation is back to about 75% of pre-Lehman volumes. That's 75% on bonds and 70% on swaps. Sterling is about 90% of what it was prior to Lehman's collapse, on both bonds and swaps. A lot more business in sterling is going through the direct market and with clients rather than through the brokers as banks try and piece the buyers and sellers together without having to go onto the Street and negatively effect their market. That's not the same in the eurozone, where most of the volumes seem to be going through the brokers and do seem to be interbank positions. There are many more competitors in the eurozone inflation market. Where you have maybe 12 banks you can go to for a price on a bond or a swap. All of these guys are competing to be in the top five, and that's where most of this recovery in volume has come from, although customer volumes have also recovered recently as the large interbank volumes have spiked interest. The sterling business is a proper business at the moment, where it is customer-driven. On the dollar side, what we've seen is a good recovery in liquidity as well, to about 90% of the pre-Lehman volumes, again through real customer demand.

What we call non-core inflation products is where we've seen volumes go higher than what they were prior to Lehman's collapse. Some of the domestic indexes in Europe – for example, the Danish, Swedish or Italian swaps – have seen good liquidity and we were very surprised at how quickly it's recovered and surpassed what we were seeing beforehand. It is really beginning to take off.

Mark Capleton (MC): In terms of liquidity provision, we're at volumes that are a relatively high proportion of pre-Lehman levels. In terms of general liquidity, the hedge fund world is less active as a liquidity provider than before. The involvement of this key source of liquidity is definitely nothing like pre-Lehman levels. Among the things that have helped the normalisation process is the light touch by government suppliers of inflation-linked paper. We saw perhaps €35 billion of inflation supply in the euro area in 2009 – that's 30% down from the peak annual volume in 2007. They've been risk-averse, not just in the size but also in the area of the market they've delivered. We've seen an intense concentration of supply in the 10-year part of the euro-linker curve as they've not wanted to take too many chances with moving away from where they see the liquid area of the market being. That has certainly helped.

Risk: **Can you describe some of the main factors that have driven the inflation this year?**

Dariush Mirfendereski (DM): One of the drivers I see hindering the European market is the fact that, prior to Lehman, inflation-linked bonds and swaps were very often treated and traded almost indifferently because you could get out of one and into the other without much friction and also without much risk of the basis jumping around. Perhaps the Street was ahead of itself in the sense that it treated them almost identical to one another. What we saw post-Lehman was they are not the same thing – if you're running big basis, they can move around. And usually the

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Street is mostly one-way, especially when there's a post-Lehman trade replacement scenario happening. So there's a lot less risk warehousing going on – hedging swaps with bonds, for example – and that hinders the volumes that you see. Achieving the volumes we had before the Lehman collapse is a lot harder in the euro market, as that's one market where – especially in the 10-year, five-year, 15-year maturities – the volumes in swaps were absolutely enormous. The fact that the basis risk between bonds and swaps is now greater and the perception of risk is greater, you will see less flows until some more comfort comes back.

Daragh McDevitt

Now much of what's helped this market, not just Europe but also in the UK and in Treasury index-protected securities (Tips), is the return of asset swap investors, and new investors in the form of real money. A lot of interest was in the maturities where the asset swap demand was the highest – for example, in the Italian 10- and 15-year taps – an enormous amount of taps were made in the 2019 and 2023 maturities of the BTPei curve. Again, that's because the asset swap demand was there, and this was so because the basis had moved out a lot and the asset swaps provided significant value for investors.

Volumes will also pick up if hedge fund activity picks up. Since the supply of inflation swaps had dried up in the UK, it was just fortuitous that the asset swap demand took its place. Sometimes the same buyers of inflation swaps were also looking at buying asset swaps – that completed the market, almost across the curve, but especially in the very long end. On the issuance side, the European issuers, unlike the eurozone issuers and unlike the US and UK, were pulling back on issuance post-Lehman because they thought breakevens were way too low.

JH: I don't know if it was that or just whenever they did try to issue, there would be an enormous sell off because people just could not take it down. So, the French Agence France Trésor (AFT) realised pretty quickly they could not issue the same size they were doing pre-Lehman and they scaled back their ambitions. I think it took the others slightly longer to realise they could not get away with doing, say, €2 billion of BTPei 2019 or €3 billion of a new bond whenever they pleased, and that the broken market could not handle the same sorts of volumes managed prior to the crisis.

The AFT has always done regular auctions, but other issuers were and still are more random, and that is the worst method to tap or issue an inflation-linked bond. The market hates surprises in terms of issuance. So I think the AFT did the best in terms of issuing through these troubles, such that they can now increase the auction sizes as they have kept the market wanting their bonds. The Italians were next best, but they were initially reluctant to reduce volumes, but at least they kept to regular intervals on the whole. The supply that created the most volatility in the markets has been the German inflation-linked bonds, where, because there was no formal schedule, the markets were either left with large surplus inventory or screaming out for unforthcoming supply when they needed it. So, one thing that has come to light over the past two years is that regular auctions are the best way of getting the size done at a reasonable price and not shocking the market.

Risk: **Could you describe the asset swap trade that was so popular last year, describe the sorts of flows you were seeing last year and also discuss whether that trade is still ongoing?**

Daragh McDevitt (DMcD): In terms of explaining the stress that happened last year, we had a balanced market in terms of the supply of swaps. Banks were happy to warehouse bonds in order to supply inflation. If there was a big enough differential, the hedge funds would come in and happily take that seemingly free money. With the de-levering process that took place, all that capacity in terms of the hedge funds and the warehousing of the banks disappeared at once. If you're a hedge fund looking to de-risk or you're a trading desk in a bank and you're holding inflation bonds and you're short nominal bonds in order to pay for swaps, and balance sheet is suddenly a key criteria, the easiest thing to get rid of is the bond balance sheet. So that entails buying swaps, selling inflation-linked bonds and buying nominal bonds. Those three actions effectively moved this basis between the breakeven in the bond and the breakeven in the swap massively. So you move that price until you get someone to execute that trade with.

The problem we had was the traditional providers of liquidity were the very people who were looking to unwind the trades. So, therefore, you need new suppliers of liquidity and that basically means real money. Tragically, real money had its own issues at that time, so putting our hands up and saying there are loads of opportunities over here – the equities guys were saying the same, the credit guys were saying the same, there were opportunities everywhere. The concept of there being free money on the table, the basis will come back – conceptually, while it's absolutely true and many clients benefited hugely from that trade, you needed to move the price so it was blindingly obvious there was free money on the table.

So you had a price signal that told people this was a silly price, come in and to switch out of nominal bonds into inflation-linked bonds and swap them back, and then supply inflation swaps to normalise the market again. That trade took place and certainly many benefited and it has come back all the way to flat and through in the case of the UK. Now I would argue that logic dictates it has to be the other way around. We've been fortunate enough in the UK to have some inflation supply via a few corporate deals, but I don't see that standing up to the incessant liability-driven investment (LDI) demand and receiving in inflation swaps. I cannot see that the market works with the price of inflation swap markets at a discount to the price of inflation bond markets.

MC: I think the bond-versus-swap breakeven spread is not the most critical moving part here, in terms of the exit of the liquidity providers in the asset swap on the hedge fund side having been replaced by the pension industry in the UK coming in and buying large blocks of UK linkers on an asset swap basis. Pension funds already had in place the Libor servicing obligation and were nervous perhaps about the assets they held to generate the Libor to service that swap. So partly they were buying new Libor-plus government assets to service the swap that was already in place.

Another part of it was them saying 'we've had the strategy

of using the swap overlay on the liability side so we can keep our alpha generation in other assets'. They then perhaps have started to say 'we'll flip that around, we'll hold our assets to match our liabilities and we'll generate our alpha with an overlay strategy', so you hold equity index derivatives rather than equity cash instruments. That kind of flip-around has been one of the themes in play. But one of the reasons why inflation-linked has moved to trading through nominals is because they want the security of long-duration Libor-plus assets, and of course the linkers are the longest-duration instruments.

This is not unique to the UK. Maybe people look at things on a matched maturity basis, looking at this bond-versus-swap breakeven. But if you take, for instance, the OATei 2040 issue, it trades on a Z-spread currently of Libor-plus 51 basis points. The new 2060 nominal OAT, which has a shorter duration, trades at Libor-plus 58bp or 59bp. So, on a matched-duration basis, which is a better measure, you've actually got linkers trading rich to nominals in the euro market as well, so it's the US that is the outlier now.

Mark Capleton

It's definitely interesting that this is some kind of market clearing process, that the real money has come in to do the asset-swapping trade. They are able to hold these trades longer and they will, perhaps, even hold them to maturity. The other interested party that has come into the mix are corporate buyers on an asset swap basis and they perhaps have softer mark-to-market rules that enable them to hold these positions for longer. The banking system is looking to hold greater proportions of high-quality liquid assets so, particularly at the front-end where inflation-linked have traded very cheap compared to nominals, they've come in. It's a healthy process of market adjustment that these new players have come in that have firmer hands compared to the hedge funds.

DMcD: Arguably one of the best things that has ever happened in the inflation markets is that you have created this wall of potential people who can create that link between bonds and swaps. If you are indifferent as to whether you get inflation by one route or another, then you should be monetising these differences between the bond and swap market. Effectively, the market is giving you a signal that there are too many swaps or too many bonds and you effectively respond to that by switching out of one to the other.

DM: One thing we haven't yet mentioned is the term structure of swap spreads. That's really critical in assessing what values you get in terms of bonds versus swaps on a like-for-like basis. There are some similarities between the swap spread term structure now almost existing now almost in all markets where you've got Libor-plus in the long end and Libor-minus in the front end for asset swaps, so there's a steepness in the swap spread term structure. That's exactly how the Buoni del Tesoro Poliennali (BTP) market was pre-Lehman. And, because the long-end of the European inflation asset swap market was mostly BTP and Greek market, those inverted swap spread term structures meant that, optically, the asset swap investors would buy something that would look really cheap, but they ultimately ended up paying a little too much for it. Because of this, the inflation swaps traded slightly cheaply relative to bond-implied fair value because optics were driving the buying interest, not necessarily the correct valuation of the credit exposure. And you could say the same thing right now about the long-end UK linkers. I'm not surprised some of the more savvy investors are reversing out of longs In UK linker asset swaps. Even when they weren't reversing out of longs in UK linker asset swaps, they were expensive, but on an optic side they look cheap and they give you a higher pick-up. That swap spread term structure has a lot to do with this cheapness of inflation swaps relative to bond-implied levels and, because of that, I don't see a quick end to the long-end of the UK swap versus bond valuations.

What's really interesting post-Lehman is that the European markets and the UK market are now trading on the same fundamentals that were driving the Tips market and US inflation swaps beforehand. I've seen what the US inflation swap market has been doing for years. It has been basically supported by the Tips asset swap flows. Where Tips assets swaps traded dictated where the zero-coupon swaps traded. In the UK market, it wasn't quite the same because we had actual natural supply from utilities and private finance initiatives (PFIs), so we had supply and demand and, therefore, these things were more or less in balance. Now we are in a completely different game because the natural supply side is gone for now. Hopefully it will come back on the PFI side, maybe through bank lending, but it is gone now. The only thing that is supporting the demand side for inflation swaps is the asset swap trade. Therefore, it is the level where the asset swaps trade that then determines everything else, and where they trade is sometimes determined by incorrect assessments of value and people saying 'it just looks optically quite good and I want it'. That sort of inversion of the swap spread term structure means a lot of that stuff is affecting the long end of the curve. European markets have reversed that now, but I don't see any change in the UK unless the swap spread term structure changes, which I can't seen happening anytime soon given the gilt market dynamics.

Jim Hough

MC: Dariush mentioned the term structure of the swap spreads, and the 10-year part of the curve is where the bulk of the cheapness is in the linkers relative to the nominals in the euro area. That should moderate as governments

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get more confident and are happy to disperse their supply across the curve in a higher breakeven environment. People are generally expecting Germany to come at the 30-year point at some point. In the UK, the relative swap spread call is a much harder one because we had a year where we had negative net issuance of conventional gilts because of quantitative easing and sizeable positive net issuance of index-linked gilts. Yet, in spite of that, we've seen breakevens widen and linkers richen relative to nominals and swaps. If you told me that was going to happen 12 months ago, just after quantitative easing began, I would have said that's crazy, but it's happened.

Dariush Mirfendereski

There are two sources of hope on that front: we do have a massive infrastructure programme to deal with and government finances aren't in such a shape that the government will be able to do it. The numbers being bandied around are in the region of £450 billion–£500 billion over the next 10 years, so we have to see a revival of project-related finance. The government is probably also going to be tilting supply much more aggressively towards index-linked. One final source of hope is that these UK DB pension fund liabilities are capped liabilities, they are limited price inflation capped at 5%. We've got breakevens on a forward basis at around the 4% level. You go much higher and these liabilities turn into nominal liabilities and then demand for linkers perhaps fades.

Risk: **Can you comment on the outlook for supply for the coming year? Emerging markets in particular have suffered quite a lot over the past couple of years, with several countries delaying bonds. Do you see these markets issuing this year?**

JH: The current Greece situation has certainly put off a few people. We can safely assume the Spanish 10-year linker has once again been delayed. The Greeks definitely are in no position to try to do a Greek linker or even a tap of their 2025EI or 2030EI bonds. Oddly, the liquidity we've seen in those Greek linkers has actually increased over the past three months. Whereas they wouldn't trade that often in the past, now you're being asked every day, albeit in smaller clip sizes, but the volumes I'm trading are probably five times as much as I was trading six or 12 months ago, and even prior to the Lehman crisis. This is because investors have realised there has to be a sensible bid/offer on these bonds, and they are prepared to cross it. As a market-maker, you're happier to make a price if someone is willing to pay you to take the risk on.

In Asia, we have been talking to Thailand and South Korea on their recent inflation-linked ambitions. The will is still there, but there's a certain amount of hand-holding and reassurance taking place as we show how other bond markets have recovered. In terms of timing, these are likely delayed at least until the second half of this year, if not further. There is, however, a long queue of investors who are more than happy to buy these bonds – they want exposure to Asian inflation.

DM: An interesting twist is that the Australian market is a very good proxy for gaining exposure to Asian inflation risk, and we have been discussing that angle with investors. The Australian economy is driven a lot by commodities and, therefore, there is a strong correlation between what their inflation market does and what Asian inflation does. So, if you can't get your hands on what you need, the Australian market is not a bad proxy.

The other factor that is quite significant is that, when a new market opens, there is a period in which the bonds trade cheaply because the issuer has to build up liquidity and trust in the market and to educate investors. That period may take several years. It took the Tips market probably until 2003 to achieve levels that were in line with perceived inflation risks, i.e. six years post first issuance in 1997. Issuers need to be prepared for the long haul, they need to be sold on the idea this is a long-term project that brings them diversity in terms of the investor base and it also gives them a risk hedge. Once they are sold on the idea, then it's really a case of what's a good entry point. If they get their domestic base right, if they get the regulations in place and are prepared to be there for the long haul, then it's really just a question of entry points. The current scare with the sovereign risk is a factor but if and when this goes away, with the recovery story continuing, the conditions will be right again.

Risk: **Quantitative easing is an extremely hot topic and it has split opinion on how it is going to affect inflation going forward. How is this affecting strategies in the market and what are end-users doing based on their expectations of what quantitative easing may or may not do?**

DMcD: You've had a disruption to the velocity of money – banks aren't lending or people aren't borrowing, which effectively is crushing the money supply and therefore supposedly the inflationary threat. Then, suddenly to fix that, you just inject money into the economy and that will arguably offset that reduction in lending. If bank lending recovers to anything like normal, you then have a bunch more money chasing the same amount of goods, and that is arguably an inflationary phenomenon. The reality is that people are concerned. We have seen new Asian central-bank-buying driven primarily by fear of inflation. They fear the devaluation of their reserves and, when they fear that when under pressure, the tendency for any government is to inflate their way out of trouble and this may be a way of doing it. So, in terms of the impact on the market, there's unequivocally more demand for inflation bonds.

JH: It's tail risk that people are worried about. For example, the rise in value-added tax (VAT) back to 17.5% from 15% in the UK. That was easy for people to price in because we knew exactly when it was happening and how. Now there's talk of a VAT hike to 20%. That fear factor drives breakevens far higher than what a hike to just 20% would imply. It's a similar thing with quantitative easing. It is not knowing what is going to happen that brings the buyers in. They want to protect against the unknown and they will just go where the liquidity is.

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