The Absolute Return Letter
September 2011

If Carlsberg Did Mortgages

...they would probably be the best mortgages in the world[1]. Denmark has produced many famous brands over the years, and many of them have become as popular abroad as they are back home; however, arguably the most successful Danish invention of all times has never gained much traction abroad, but that may be about to change. Please welcome the Danish mortgage finance model.

This time is different

Before we go there, some background colour. It is becoming increasingly evident that austerity – at least the extreme variety currently applied in peripheral Europe – is *not* the way forward. It may please the rating agencies short term, but it is ripping Europe apart, both economically and politically. Furthermore, it doesn't work. Readers of Rogoff and Reinhart's masterpiece *This Time Is Different* shouldn't be at all surprised. As they point out, once the credit cycle comes to an end and de-leveraging and austerity sets in, the ensuing loss of tax revenue is *always* underestimated and will lead to default more often than not.

Based on recent evidence from Greece that may be precisely what is happening. About three weeks ago, the Greeks shocked everyone by announcing a state fiscal deficit of €15.5 billion for the first six months of 2011 vs. €12.5 billion during the same period last year. Excuse me, but wasn't austerity meant to reduce the deficit?

Monetary policy is also not very effective in the current environment. In fact, it is all but impotent when the private sector is deleveraging, as the Americans have recently found out. And to go down the path of public spending as if there were no tomorrow - another policy tool the Americans seem to have fallen in love with - is not the way forward either, although it may ensure some modest growth in the present. We pay a very high price for that growth, though, as we mortgage the future of our children.

Too much debt

Too much debt is the problem in a nutshell as was amply demonstrated in a recent study conducted by the Bank for International Settlements[2]. It is frightening how debt levels have accelerated over the past few decades and nowhere more so than in Europe. The numbers in chart 1 below represent total debt levels, i.e. the sum of sovereign, corporate and household debt, measured as a percentage of GDP. Some countries (e.g. Spain) continue to hide behind the fact that sovereign debt levels are manageable; however, as the Irish have learned the hard way, it is total debt that matters.

Austerity cannot fix this problem. The entire OECD area will suffocate in its own debt long before we can reap the benefits of such soberness. Neither can zero percent interest rates. End of story. The sooner our political leaders realise this, the better. Out-of-the-box thinking is thus required, something which most of our political leaders seem incapable of delivering.

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[1] *The Danish brewer Carlsberg ran a highly success advertising campaign in the UK more than decade ago based on the theme 'If Carlsberg did...'. To this day, most people in the UK know precisely what you mean when you say those words.*

[2] *"The real effects of debt", BIS, 5 August 2011.*

Chart 1: Total Debt as a Percentage of Nominal GDP

	Levels				Changes[2]		
	1980	1990	2000	2010[1]	1980–90	1990–2000	2000–10
United States	151	200	198	268	49	–2	70
Japan	290	364	410	456	75	46	46
Germany	135	136	226	241	1	90	15
United Kingdom	160	203	223	322	43	20	99
France	160	198	243	321	37	45	78
Italy	109	180	252	310	71	72	58
Canada	236	278	293	313	42	15	20
Australia	127	172	182	232	46	9	50
Austria	162	178	205	238	16	27	32
Belgium	170	264	298	328	94	34	30
Denmark	...	...	259	341	...	...	82
Finland	146	173	222	270	26	49	48
Greece	93	140	195	273	47	55	78
Netherlands	205	265	294	327	60	29	33
Norway	...	...	256	334	...	...	78
Portugal	144	141	251	363	–2	110	111
Spain	172	187	258	355	15	70	97
Sweden	219	289	320	340	70	31	21
Total of above							
Median	160	192	251	321	32	59	70
Weighted average[3]	169	215	246	307	46	31	61
Memo: Std deviation	*50*	*64*	*55*	*54*			

[1] Some figures refer to 2009. [2] In percentage points of GDP. [3] Based on 2005 GDP and PPP exchange rates.

Source: Bank for International Settlements

We need strong leaders

Allow me to go one step further. I would argue that our modern day democracy is not at all well equipped to deal with a crisis of the sort we currently have on our hands. Our political system has been corrupted by the fact that spending buys votes. The inevitable consequence of this is that politicians will only pursue the appropriate, but painful, option when every other alternative is even more agonising.

Charles de Gaulle, who in 1958 managed to force some really tough decisions through the French parliament, in effect presided over a legal coup d'etat when he assumed absolute power for a limited period of time. As he was fond of stating: "*In politics it is necessary either to betray one's country or the electorate. I prefer to betray the electorate.*" I just wish we had leaders of his calibre around us today.

Five specific ideas

Anyway, back to some of the outside-the-box ideas that could get the global economy back on even keel again. Some of these I have commented on before. Others I will discuss in future letters. There is only time and space for one of them in the rest of this letter. Here we go:

1. <u>Stop once and for all the systematic FX cheating.</u> A cynical and mercantilist approach by many Asian nations since the Asian currency crisis of 1997-98 has artificially depressed their currencies, leading to massive current account surpluses throughout Asia. This is one of the key reasons why the world is so out-of-balance today. The sooner Western governments abandon their Mr. Nice Guy approach and begin to crack down on such selfishness, the better for all of us.

2. <u>Reduce age related liabilities.</u> As our economic consultant Woody Brock is fond of saying: "*The first baby boomer statistically retired on January 1, 2011. There are 79 million more of us to come.*" Current budget deficits will prove a walk in the park compared to what awaits governments all over the Western world in the years to come. And some of the countries currently caught up in the eurozone crisis also happen to be blessed with the worst demographics. If the current crisis doesn't finish these countries off, the demographic tsunami of the next 30 years certainly will – unless dramatic action is taken. Raise the retirement age to 75. Discontinue all defined benefit pension plans with immediate effect. Remove the right to vote for people who live on transfer payments (said only partly tongue in

cheek). Drastic? Absolutely. Fair? Not necessarily. Essential? Yes, if we want our welfare state to survive at least semi-intact.

3. Reduce tax rates. I discussed this controversial subject in the November 2009 Absolute Return Letter ("Time to Cut Taxes?"), and rarely has one of my letters provoked more response. However, the academic support for lower taxes as an alternative to persistent government spending is quite strong. Christina and David Romer concluded in their famous study from 2007[3] that tax cuts provide more 'bang for the buck' than public spending in terms of reinvigorating economic growth during times of economic stress. Their study should be required reading for every government in the Western hemisphere. Quite sadly for the American tax payer, though, Christina Romer lasted less than two years as Chairwoman of the Council of Economic Advisers in Obama's administration. Someone couldn't cope with her prescribed medicine.

4. Reform the banking industry. Create a system of utility (i.e. bankruptcy 'proof') banks, allowing ordinary people access to basic banking services without having to worry about whether the bank will be around tomorrow or not. If necessary, establish the banks with government funds and subsequently distribute the ownership to depositors of those banks. Only the utility banks should be explicitly or implicitly underwritten by tax payers' money and their business should be strictly regulated. The banking industry as it stands today has effectively high-jacked our society, and the sooner we can free ourselves from such dependency, the better.

5. Improve the mortgage finance system. Mortgage refinancing is one of the great transmission mechanisms of monetary policy – when it works! When policy rates are kept low (as in recent times), the relative steepness of the yield curve encourages risk taking through the investment in long-dated bonds, driving bond yields lower, which should lead to an increase in refinancings; however, cartel-like behaviour and red tape in abundance has often prevented this mechanism from working to its full potential which is where the Danish mortgage model fits in and what the rest of this month's Absolute Return Letter is about.

Too many pay too much

In a recent paper by Alan Boyce, Glenn Hubbard, and Chris Mayer[4], it is estimated that over 30 million American households could save about $74 billion in interest savings in the first year alone, if only the US mortgage refinancing system worked better, i.e. with refinancing rates closer to market rates. Even more importantly, in terms of the effect such savings may have on consumer spending, it is predominantly lower and middle class families who would benefit from a change to the mortgage system. Almost 80% of the interest savings will go towards mortgage balances of $300,000 or less (see chart 2 below). President Obama and his administration should be ashamed of themselves for not addressing this issue. In the words of Christopher Whalen at The Institutional Risk Analyst:

"The Obama Administration and most of the federal regulatory community have badly botched the government's response to the mortgage crisis. Part of the issue is a lack of understanding of the problem, but mostly it is the big banks and GSE continuing to exercise their cartel pricing power to deny American homeowners their legal right to refinance.

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[3] *See http://elsa.berkeley.edu/~cromer/RomerDraft307.pdf*

[4] *"Streamlined Refinancings for up to 37 Million Borrowers" by Alan Boyce, Glenn Hubbard and Chris Mayer. Alan Boyce is CEO of the Absalon Project; Glenn Hubbard is Dean and Russell Carson Professor of Finance and Economics at Columbia Business School; Chris Mayer is Paul Milstein Professor of Real Estate, Finance and Economics at Columbia Business School and Visiting Scholar at the Federal Reserve Bank of New York.*

"In 2008, when the Fed again dropped interest rates to liquefy households and boost consumer demand, the GSEs responded by raising the barrier to home refinancing by changing the loan level pricing adjustments or LLPAs. This move defeated the Fed's LSAP program to purchase mortgage securities and thereby drive a significant increase in home refinancing. Rich people got refinancings, but the vast majority of Americans who had the legal right to refinance in 2008 and 2009 were locked out by the banks and the GSEs, who did not want to see the high coupon, high SATO loans produced between 2002 and 2007 prepay. Again the reason, greed, both by banks and the GSEs."

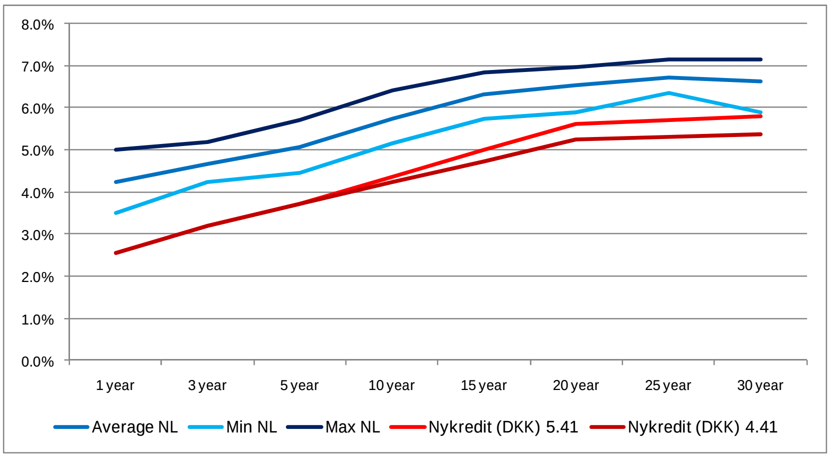
Chart 2: US Mortgage Balances and Interest Payments[5]

Origination Balance	Outstanding Balances	Interest Savings
Under $100,000	14%	18%
$100,000-199,999	33%	36%
$200,000-299,999	27%	25%
$300,000-399,999	17%	15%
$400,000-499,999	6%	4%
$500,000-599,999	2%	1%
$600,000-699,999	1%	1%

Source: Lender Processing Services, Alan Boyce, Glenn Hubbard, and Chris Mayer. As of June 2011.

Here in the UK, the situation is not much better. The UK system is based on churning borrowers every few years to extract the maximum amount of fees. Those borrowers who don't - or can't - refinance shift to higher variable rate mortgage payments after a period of fixed rates. Variable rate mortgages ensure a huge hit to household finances – and government popularity – when interest rates rise, enhancing the boom-bust nature of the UK economy and ensuring political instability.

Chart 3: Danish vs. Dutch Mortgage Rates



Source: Alan Boyce, the Absalon Project

[5] *Outstanding balances represent the portion of total outstanding GSE mortgage balances broken down by the origination amount. Interest savings represent the portion of the total interest savings that accrue to borrowers in each category. The reason that a disproportionate share of the interest savings go to borrowers with the lowest origination balances is that these borrowers also have the highest mortgage rates and were the least likely to refinance to take advantage of low rates.*

Likewise in other European countries where inferior mortgage finance models ensure that local homeowners cannot finance their borrowings at the same favourable terms which are available to the Danes. In the Netherlands, for example, mortgage rates should strictly speaking be lower than Danish rates, as the Dutch funding rate (Euribor) is lower than the Danish equivalent (Cibor), but they are not (see chart 3). The Dutch found to their detriment that depending on balance sheet funding of banks for mortgage loans was pro-cyclical and, quite frankly, a very bad idea.

There is a solution

So what is it that the Danes do so much better? The story begins with the great fire of 1795 which destroyed nearly one quarter of Copenhagen. Funding was required to rebuild the city and some egghead came up with the idea of issuing bonds to fund the massive capital requirement. As a result, the first mortgage association was established in 1797.

The adoption of the Constitution of the Kingdom of Denmark Act in 1849 provided the first regulatory framework and Danish mortgage financing has ever since been tightly regulated, ensuring an entirely unblemished track record with not a single default to report in over 210 years[6]. Even in 1813, when the Kingdom of Denmark defaulted, the mortgage bond system survived intact. Even more impressively, the combined loss ratio for all Danish mortgage credit institutions (MCIs) has *never* exceeded 1% in any one year[7] – a number most other countries can only dream of.

The pass-through principle

At the centre of the Danish model you find the so-called pass-through principle. Danish MCIs are subject to very strict asset-liability matching rules with the bonds being issued matched by the mortgage loans being granted. All liquidity risk for the MCIs have thus been eliminated[8].

A key component of the pass-through principle is the ability for borrowers to retire their debt at any time, which is a much more consumer-friendly model than the one applied in most countries. Imagine a typical home-owner scenario where the borrower pays $100,000 for a home with a 20% down payment. Under the existing system in most countries, if the value of the house subsequently drops 10% (Case A in chart 4 below), the homeowner will have lost half the equity ($10,000 of the $20,000 down payment).

Not necessarily so in Denmark, though. Because borrowers hold the right to buy back their mortgage at any time by paying the lower of par or the current market price (the US system only allows mortgage loan prepayments at par and many countries do not allow prepayments at all), homeowners can take advantage of rising bond yields – which are often negatively correlated with property prices – and thus reduce the risk of negative equity.

There is nothing particularly Danish about this model; the Danes have merely developed a system that give homeowners the same right that corporate Treasurers have, i.e. the ability to buy their own debt at the market price.

The right to retire your debt at any time is one key area where the Danish model is superior to other mortgage finance models; however, it must be stressed that if house prices drop in an environment of falling interest rates, as has recently been the case, the Danish model will not protect homeowners' equity.

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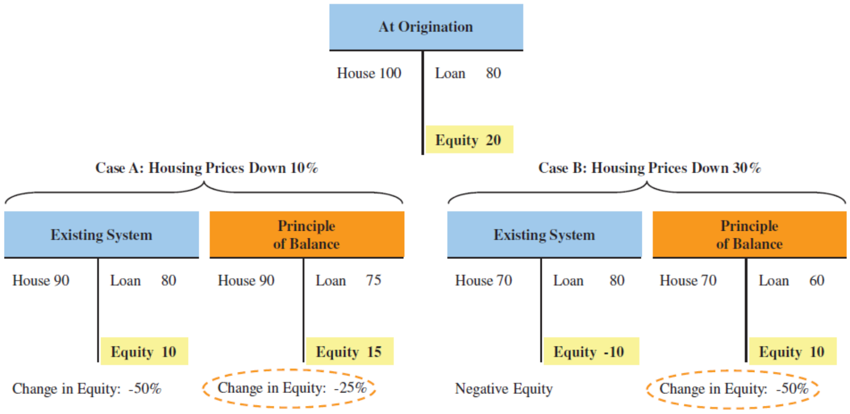
[6] *Source: "Danish Mortgage Bonds", Danske Bank, September 2008.*

[7] *Source: Nykredit.*

[8] *This is strictly speaking only true for fixed rate mortgages. Some risk remains for adjustable rate mortgages (ARMs), but let's not complicate matters.*

Chart 4: The Danish Mortgage Model May Protect Home Equity



Source: "Time to Fix the US Mortgage Market", Alan Boyce, Absalon Project, August 2011

Other advantages

The Danish model has other advantages[9], though. In no particular order:

- Mortgages are funded by issuing standardised, transparent and very liquid covered bonds on the basis of clearly defined LTV limits (80% on first residential property). Despite the comparatively small size of the Danish economy (5.5 million people), the Danish mortgage bond market is the largest mortgage bond market in Europe, providing excellent liquidity for investors.
- Danish MCIs must continuously comply with pre-defined LTV limits. If property prices fall to a point where LTV limits are exceeded, issuers must provide additional collateral.
- Danish MCIs are subject to certain over-collateralisation requirements, effectively providing a cushion during difficult times. Due to the high quality of their mortgage loans and the exact matching of assets and liabilities, the MCIs can achieve the highest bond ratings with the lowest over-collateralisation.
- Danish MCIs retain the credit risk but not the interest risk, and the mortgage bond holders retain the interest risk but not the credit risk. This model ensures that interests are aligned unlike the US system, where the credit risk is conveniently offloaded to investors – a system which to a significant degree is responsible for the crisis of the last three years.
- All Danish mortgage loans are full recourse unlike the US system which is predominantly non-recourse, where the owner can walk away from any liability.
- In case of the bankruptcy of a Danish MCI, legislation provides for protection of the bondholders, i.e. the assets are bankruptcy remote. Investors are thus unaffected by the bankruptcy provided that the cover pool contains sufficient assets.

The bonds are safe(r)

As a result, Danish covered bonds are deemed safer than those of its peers and the cost of financing mortgages is therefore correspondingly lower in Denmark compared to most other countries (see chart 5).

I should also point out that the strong performance of Danish mortgage bonds throughout the recent crisis *cannot* be explained by the lack of a local property bubble. In fact, the Danish property bubble was considerably larger than the corresponding one in the United States and the subsequent price deflation of a similar magnitude; however, delinquencies and loan losses in Denmark were a fraction of those in the US (see here for details).

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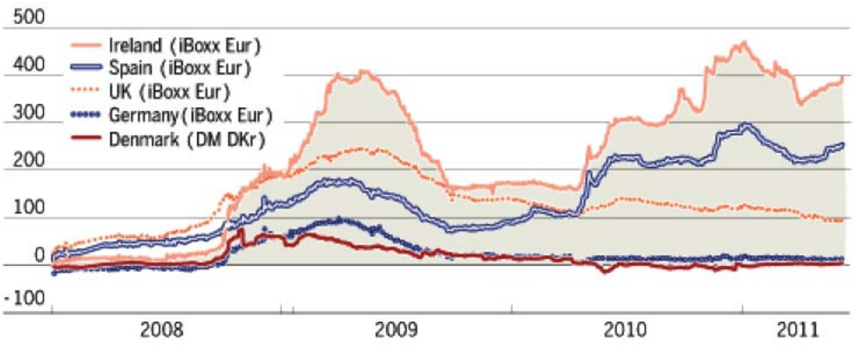
[9] *Sources: Nykredit and Alan Boyce, the Absalon Project.*

Chart 5: Danish Covered Bonds Deemed Relatively Safe



Source: FT.com

The Danish mortgage finance model represents a fantastic opportunity for policy makers to stimulate economic growth without mortgaging the future of our children, but it doesn't answer the question: How do Danish homeowners finance the remaining 20%? Prospective homeowners in Denmark are usually expected to bring at least 5% to the table themselves, leaving a need for a second lien loan of 15%. Before the credit crisis it was relatively easy to obtain such a loan from one of the local banks, but the crisis has to some degree changed that. The Danish banking sector has been impaired by the crisis, and it is no longer a given that your local bank will cough up the funds for the second lien, in particular if you bank with one of the weaker ones (of which there are many).

At Absolute Return Partners we began to spot a business opportunity well over a year ago and will shortly be launching a product seeded with a $200 million initial commitment which will invest in Danish second lien mortgage loans – partly newly issued loans and partly existing loans acquired from other investors. These second lien fixed rate mortgage loans currently yield 8-8½% per annum and thus offer a fixed yield substantially above long-dated sovereign yields. We have established a company in Copenhagen in partnership with a seasoned investment manager (see here for details) and this company will act as an advisor to Absolute Return Partners on the investment strategy.

Given the illiquid nature of these loans we will not be accepting retail investors; however, if you are an institutional investor and would like to learn more, feel free to contact us on info@arpllp.com.

Moody's don't agree

Finally, for the sake of completeness, it should be pointed out that not everyone agrees regarding the safety of Danish mortgage bonds. In a recent spat between Moody's and the Danish MCIs (see here), Moody's demanded that the Danish issuers provide additional collateral as a result of what they call a changing business model (more adjustable rate mortgages (ARMs) relative to fixed rate mortgages). Danske Bank, issuing bonds through its Realkredit Danmark unit, responded by dropping Moody's. Nykredit, the largest Danish MCI, said it would hive off the funding for it ARMs in order to protect the AAA rating on its fixed rate mortgage bonds. Alan Boyce, Head of the Absalon Project[10]

[10] The Absalon Project is a joint venture between Soros Fund Management and VP Securities A/S (effectively the back office of the Danish financial system) and was established in order to promote the Danish mortgage finance model to the rest of the world.

and one of the strongest proponents of the Danish model, commented in usual boisterous fashion:

"If Moody's want to play hardball, they should look at some other European covered bonds, things like German Public Pfandbriefe, which are stuffed with exposure to eurozone peripherals but still retain their triple A ratings."

Conclusion

In summary, introducing the Danish model is likely to lead to three immediate benefits:

1. A reduction in interest rates for all borrowers, but lower income families to benefit the most;
2. A decline in the number of homes with negative equity;
3. Alignment of interests, reducing the risk to taxpayers of irresponsible borrower, lender and servicer behaviour.

So what are the reasons not to do it? Quite frankly none, unless you are held hostage by a banking industry which happens to be large donors to political parties in many countries, and which would almost certainly argue that the profits they make off mortgage borrowers are crucial to their survival. For precisely those two reasons, it would take a political leader of a certain calibre to make the necessary changes. The sooner somebody steps up to the plate, the better.

Niels C. Jensen
2 September 2011

Important Notice

Absolute Return Partners

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We are a company with a simple mission – delivering superior risk-adjusted returns to our clients. We believe that we can achieve this through a disciplined risk management approach and an investment process based on our open architecture platform.

Our focus is strictly on absolute returns. We use a diversified range of both traditional and alternative asset classes when creating portfolios for our clients.

We have eliminated all conflicts of interest with our transparent business model and we offer flexible solutions, tailored to match specific needs.

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