

THE REAL FINANCIAL CRISIS: WHY FINANCIAL INTERMEDIATION IS FAILING

THE STATE OF THE FINANCIAL SERVICES INDUSTRY 2012

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1. INTRODUCTION

The financial system of Western nations is malfunctioning. This statement will seem no less than obvious in light of the financial crisis that began in 2008. Yet most people, focusing on excessive pre-crisis risk-taking, fail to notice a more fundamental failure. The financial system is failing in its basic function of intermediating savers and borrowers, especially savers and borrowers with long-term needs. This is the subject of this year's Oliver Wyman report on the State of the Financial Services Industry.

The report begins by showing that, looking simply at the needs of savers and borrowers, there should be no problem. Governments' and corporates' demand for long-term financing is almost matched by households' need to save for retirement. If households acted on their "natural" incentive to commit funds to long-term uses, supplying borrowers with the long-term funds they seek would require financial firms to engage in only a little maturity transformation.

Yet there is a problem. Households commit far less to long-term savings products than they could. Before 2008, this did not deprive corporates of long-term loans because banks took the intermediation risk, engaging in huge maturity mismatching. But, as the financial crisis has demonstrated, this "solution" is not cost free.

Post-crisis liquidity rules are now limiting the amount of maturity transformation banks can engage in. And this regulatory constraint on the supply of long-term bank loans available

to corporates is being exacerbated by banks simultaneously deleveraging their damaged balance sheets. Companies too small to directly access the capital markets are finding it difficult to get the long-term bank loans they depend on.

The cost of deterring long-term saving falls not only on firms seeking stable long-term financing but also on savers, who earn lower returns and will retire with smaller "pension pots". And it falls on all consumers as investment and, hence, economic output are restricted. We estimate that the social cost of the current failure of the financial services industry to facilitate long-term saving is in order of 0.75% of GDP (see Section 2). In other words, the annual incomes of the next generation of Westerners will be about \$15,000 less than they otherwise would be.

In Section 3, we examine the structural causes of the exaggerated "liquidity preference" of the household sector. These include:

- Tax regimes that penalise saving by double-taxing interest, income, capital gains and inheritance
- Tax regimes that privilege returns to investment in residential property and thereby draw funds away from long-term savings vehicles that can be used to finance corporates
- Low levels of confidence in financial firms and the savings products they offer
- A fragmented financial services industry whose internal divisions drive up the cost of intermediation.

Finally, in Section 4, we ask what remedies might emerge. We consider three areas of potential change:

- **Financial institutions** The “division of labour” among financial firms may reconfigure around maturity and risk appetite matching, thereby reducing their need to perform maturity or other risk transformation. More certain is that the banks that serve the majority of ordinary consumers will become far more cost-efficient than they are today
- **Savings products** We expect the industry to build simpler, cheaper and safer savings products with realistic returns promise
- **Regulation** Tax neutrality – that is, tax regimes that do not penalise saving or artificially favour property over alternative savings vehicles – is unlikely to be achieved by democratic politicians. But they might favour compulsory savings schemes or the kind now operating in Australia, Chile and Singapore once the current downturn is well behind us. The regulation of financial intermediation is likely to remain an inscrutable tangle of implicit taxes and subsidies.

The failure of intermediation is easily ignored; it does not cause an economic shock, as bank insolvencies do.

Nevertheless, it is a toxic failure. The financial system should be judged by its success in getting funds from those who wish to defer consumption to those with real uses for capital – that is, by its success in allocating capital efficiently.

The mortgage debt bubble and subsequent crash was a failure of efficient capital allocation. But excessive risk taking is not the only way things can go wrong. Barriers to intermediation can also prevent capital being devoted to its best uses. That is where things now stand. The post-crisis tax and regulatory regimes of most Western countries increase the need for risky maturity transformation – because they discourage long-term saving – while simultaneously discouraging banks from engaging in it.

With the contribution of traditional financial firms diminished, new kinds of intermediaries will need to step into the breach, emerging perhaps from adaptations by incumbent firms.

If this does not happen, future generations will look back on the crisis of 2008 as the cheap crisis – the real calamity being the failure of financial intermediation that resulted in a \$15,000 permanent reduction in real incomes over a generation.

2. A HAPPY COINCIDENCE OF NEEDS

We need to consume as long as we live. But we cannot always produce. When we are children, our parents will normally provide for us from their incomes. But this kindness is not always returned when the children become adults and their parents are too old to earn. And not everyone has children. So we need to make long-term savings for our retirements.

Even if reduced current consumption is uncomfortable for savers, it is good news for others. Because, without deferred consumption, no resources would be available to build the plant, machinery and other capital goods upon which the increasing productivity of our labour depends. The predicament of entrepreneurs is typically the opposite of most people's; new ventures require spending more than is initially earned. Depending on the size and complexity of the venture, this need can persist for some time, requiring investors to commit their funds for long periods. Indeed, in aggregate, this need persists forever in a growing economy.

Savers and entrepreneurs are thus made for each other. Get them together and not only do both benefit but productivity and output increase. Society benefits. Financial intermediaries facilitate this. They take on the job of credit assessment, which few savers could do for themselves, and they pool funds, which allows a borrower to get a loan of a given amount and maturity even when no saver wishes to lend the same amount for the same period.

It should not be a difficult role to play, because the needs of households and businesses match not merely in their directions, with each wanting what the other offers, but in their quantity and term. Oliver Wyman has analysed the borrowing and saving needs of households, corporates and governments in seven large, economically advanced countries: France, Germany, Spain, Italy, the UK, the US and Japan. We see a remarkable coincidence of the aggregate savings and borrowing needs.

The household sector’s retirement and “rainy day” savings requirements make them net contributors of capital, while the corporate sector is a net consumer of capital. Aggregate maturity mismatches are small (see Exhibit 1) and long-term financing should be readily available to businesses at a low cost.

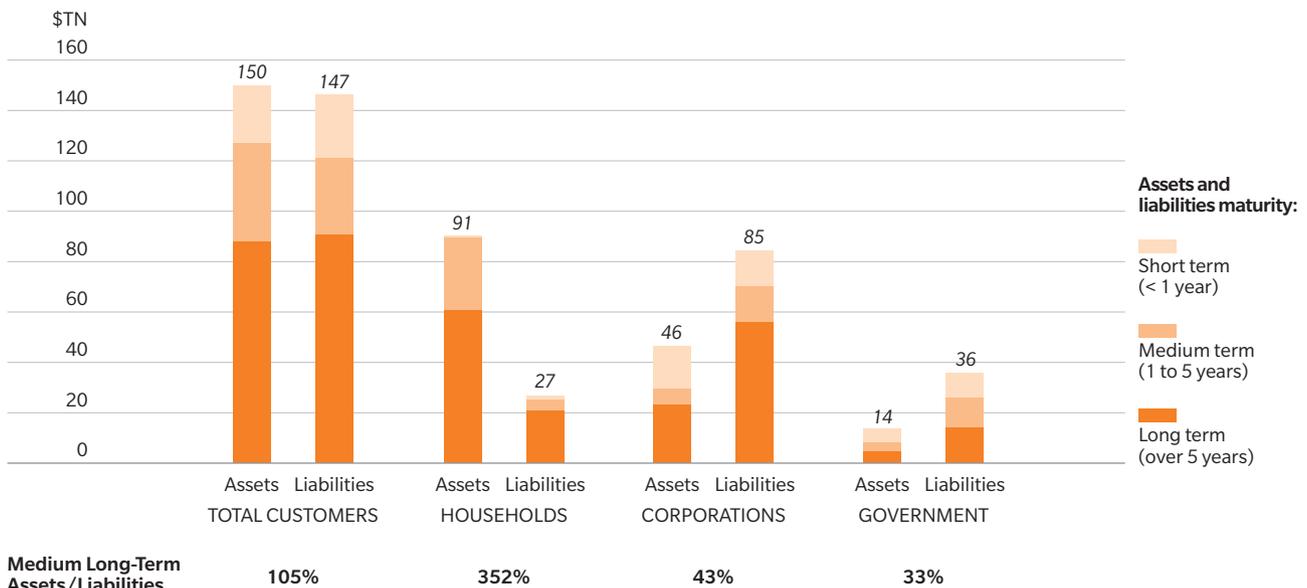
In a well-functioning financial system, the balance sheets of financial intermediaries would closely resemble the “balance sheet” of the aggregate needs of the population. This resemblance should appear not only in the aggregate balance sheet of financial intermediaries but in each intermediary (though to a lesser extent, of course). When the varying quantities and maturities of funds demanded and supplied are pooled and matched off in individual intermediaries,

they carry less risk and can perform their function at the lowest possible cost to savers and borrowers.

By this standard, the financial systems of Western economies are not functioning well. Not only do the balance sheets of individual financial firms fail to resemble the aggregate of customer needs – with banks and insurers performing opposite maturity transformations – but the aggregate financial sector balance sheet does not closely resemble customers’ needs (see Exhibit 2).

Most significantly, the term of liabilities in the financial system (mainly composed of assets held by the household sector) is shorter than it should be. The banking system engages in positive maturity transformation, while the insurance industry engages in negative

EXHIBIT 1*: MATURITY BREAKDOWN OF CUSTOMER NEEDS BY CUSTOMER TYPE IN THE AGGREGATED SEVEN COUNTRIES (FR, GE, SP, IT, UK, US AND JP)



Source: US Federal Reserve, Bank of Japan, Bank of England, European Central Bank, Orbis, Oliver Wyman analysis

‡ Oliver Wyman performed a fundamental needs analysis of financial system customers (households, corporates and governments) to estimate the optimal maturity profile of their savings and borrowings. This allows us to compare it with the supply-side maturity mismatch across the countries of analysis (FR, DE, SP, IT, UK, US and JP). For retail we assessed the annual stock of financial assets (cash balance, “rainy day” savings and savings for retirement or planned house purchases) and liabilities (short-term financing, consumption loans and mortgages) of an average retail customer throughout his or her life in each of these countries. For corporates, split between SMEs and large corporations, we sized their different financing needs (working capital vs. investing in fixed assets) and compared the resulting liabilities profile to their assets (working capital, strategic savings to grow the business and equity stakes in other companies) broken down by maturity.

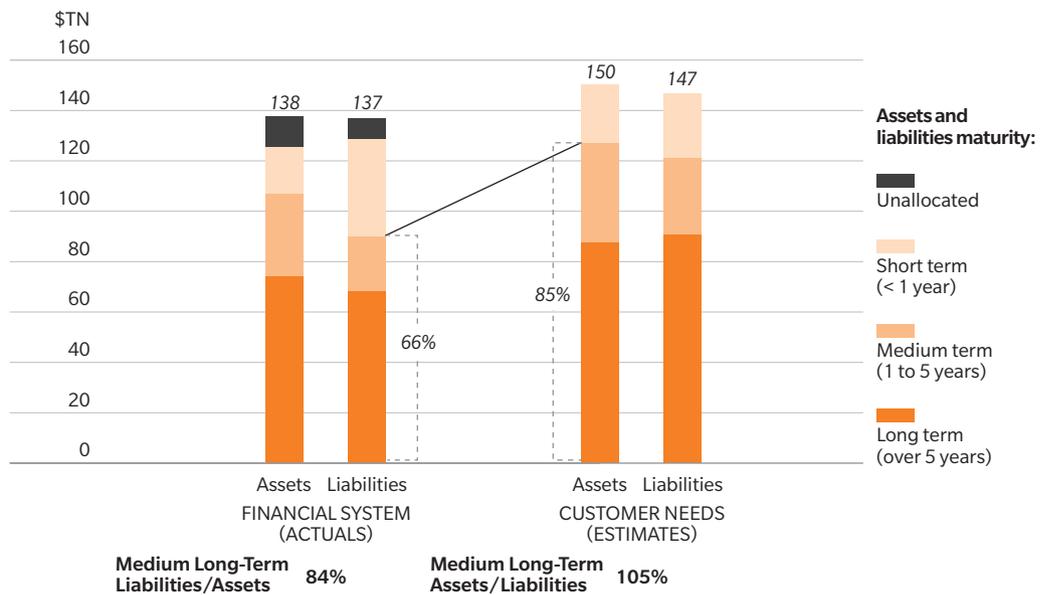
maturity transformation. But the combined effect is not neutral. In aggregate, the available long-term funding is 21% less than the aggregated desired consumer long-term commitments. In other words, the financial system is failing to hook-up savers and borrowers with long-term needs, meaning that savers make shorter term commitments than those in their best interests, financial firms carry excess risk and corporates have a higher cost of capital.

We examine the causes of this failure to intermediate potential savers and borrowers in Section 3. Here we aim to estimate its social cost: that is, the amount by which it reduces GDP growth and hence long-run consumption.

That low savings rates generally slow economic growth is not controversial. However, estimating the size of the effect for any given region at any given point in time is very difficult. The effects are complex, interrelated and depend on many other variable factors. For example, rising savings entail lower current consumption and thus lost welfare. Returns on capital may be below the rate of economic growth, suggesting that there has been excessive saving in the past. Consumer preferences may shift over time as consumers regain confidence in the system, so some of the effects may be transient.

Our modelling of the effect is highly sensitive to a number of parameters that are difficult to calibrate over the time period: for example,

EXHIBIT 2‡: COMPARISON OF MATURITY BREAKDOWN BETWEEN FINANCIAL SYSTEM AND CUSTOMER NEEDS



Source: US Federal Reserve, Bank of Japan, Bank of England, European Central Bank, Orbis, Oliver Wyman analysis
 ‡ The Financial System balance sheet total differs from customer needs total because some customer financial flows are not intermediated by financial firms (e.g. retail customers directly buying corporate equity or bonds). This analysis focuses on financial flows within Eurozone countries, UK, US and Japan. The exposure with the rest of the world has not been included in the analysis and is another reason for the discrepancy between the financial system and customers.

The structural problems we discuss in this report are common to all Western countries. However, they vary in severity. For example, Australia's compulsory private pension policy counteracts the various disincentives to saving, such as taxes on interest earnings, which it shares with other countries. To avoid making this report hopelessly long, complicated and tedious, we usually ignore such variations. The story is not exactly right for every Western country, but it is roughly right for most of them.

One important exception to part of the story must be noted, however. The status of the US dollar as a reserve currency and of US securities as "safe havens" mean that Uncle Sam and American corporates can borrow at low costs despite very low domestic savings rates. In particular, because the US government underwrites the mortgage system and issues quasi-guaranteed MBS bonds, foreigners and non-banks can buy large quantities of long-dated paper at government bond-like prices. This leaves the deposits of US banks to be deployed in the US corporate sector.

Globalisation of the capital markets means that – over the short term, at least – low rates of (long-term) domestic saving need not be a constraint on economic growth provided a country's government or firms remain attractive to foreign investors. America's government, banks and corporates are not facing the rapidly rising cost of capital confronting many of their European counterparts. Indeed, the low cost of US debt means that many American entities can benefit from a "carry trade", investing their cheaply acquired funds in higher yielding foreign assets.

Over the long run, however, it is unlikely that any country's net debt level can rise indefinitely without the population bearing some cost. The current debt crisis in the Eurozone is helping to maintain America's safe haven status but this is surely only a temporary reprieve. Eventually, Americans will not be able to increase their debt without also increasing the price they pay for it. Those interested, especially in the US, should read this report and behold current European turmoil as a warning about a future that is, perhaps, not so far off.

the share of output due to capital and to labour, total factor productivity and capital stock depreciation. However, under most sensible ranges of parameters, the impact of moving the savings rate alone is of the order of 0.5% of GDP growth per annum over the 30 year period. Together with the losses due to artificially high real estate prices and low levels of maturity transformation (see Section 3.1.2), this reduces GDP growth by 0.75% per annum.¹ In 30 years, our children's incomes, on average, will be \$15,000 less than they could have been. (\$15,000 is 44% of today's OECD nations average GDP per person of \$34,000.)

Though this 0.75% of GDP figure is uncertain, we are confident that it is the right order of magnitude. That is, the cost of inefficient intermediation is neither 7.5 basis points nor 7.5% of GDP per annum. We leave the task of deriving a more certain estimate to interested readers.

¹ For the savings effect, we have used a simple constant returns to scale production function, with 1% per annum total factor productivity (TFP) growth and a capital share of 30% of output. We examined savings rates in the 5%-15% range, and tested the impact of TFP improvements due to better quality capital of up to 0.1%. We assumed constant capital depreciation over the period and tested rates up to 15%.

For the other effects, we have used the same simple model, with increased allocation to capital from real estate (10% over time) and increased returns due to better quality capital (15% of capital allocated to long-end of the yield curve). **Both these effects, when modelled, are large and we have scaled them back due to estimates of the dynamics to ~0.25% of GDP per annum across the two effects.**

3. CAUSES OF FAILURE

Why is the financial system in major Western economies failing to perform its central function of efficiently intermediating savers and borrowers? There are three reasons.

The first is that the liquidity preference of householders is exaggerated by structural distortions of the investment market and by the poor performance of financial intermediaries in delivering reliable returns to savers. This reduces the supply of long-term savings available to long-term borrowers.

This problem is exacerbated by the historically fragmented nature of the financial industry, with some firms holding long-term assets funded by short-term liabilities (banks) and others holding short-term assets funded by long-term liabilities (insurers).

Then, with these two problems requiring financial intermediaries to engage in a great deal of maturity transformation, new regulations are making it increasingly difficult for them to do so.

We examine each of these three problems below.

3.1. RELUCTANT SAVERS

Savers are committing their funds for shorter periods than is ideal for them or for economic growth. Why? What explains this exaggerated liquidity preference in the household sector?¹

Some of the causes are merely cyclical. During an economic downturn, people become more worried about the immediate future and their desire to hold liquid assets, especially money, increases. Making funds unavailable for consumption by committing them to long-term savings products looks foolish when unemployment is near 10% and the newspapers warn of impending financial doom.

At the same time, central banks are trying to maintain or increase the money supply in the face of deleveraging. Their open-market operations are driving down both short and long-term interest rates. In the US and UK, long-term interest rates are lower than ever. Indeed, at current rates of inflation – 5% in the UK, for example – real interest rates are negative.

These cyclical deterrents to long-term saving will probably disappear when economic uncertainty recedes and output growth and interest rates increase. But other, structural deterrents will not. These are the subject of this section, since they might reasonably be addressed by policy makers and financial firms.

¹ We consider only household savings here because the maturity of corporate “savings” is not an issue. Corporates do not really “save” but hold funds for short-term cash management and “war chest” purposes, both of which require the funds to remain liquid.

3.1.1. TAXES ON SAVING

Put simply, we have two uses to which we can put our post-tax income. We can spend it or we can save it.¹ Though presumably not aimed at discouraging saving, government policies common across the Western world certainly do so.

The most obvious is that governments promise to provide their citizens with small retirement incomes. For those on low incomes, these small pension incomes are big enough to be cost effective solutions for pension provision, effectively eliminating any incentive to save. Yet, with a few exceptions, governments do not save to fund these retirement incomes.² Rather, they fund them from current taxation, which reduces citizens' ability to save.

Then governments tax income from interest, dividends and capital gains. Because interest, dividends and capital gains are all earned from investments made out of post-tax incomes, these are forms of "double-taxation".

Estate taxes further discourage saving. By making it true not only that "you cannot take it with you" but that your children cannot get it either, estate taxes encourage those to whom they might apply to consume rather than save before their deaths.

1 You could give your money away, of course. But the recipient must either spend it or save it, so we omit this as a mere intermediary between the ultimate allocation of the money into current consumption or saving.

2 New Zealand is one such exception. Rather than following the Australian policy of compulsory private pensions, in 2003 the New Zealand government set up a state superannuation fund, aimed at funding a portion of future state pensions from real savings.

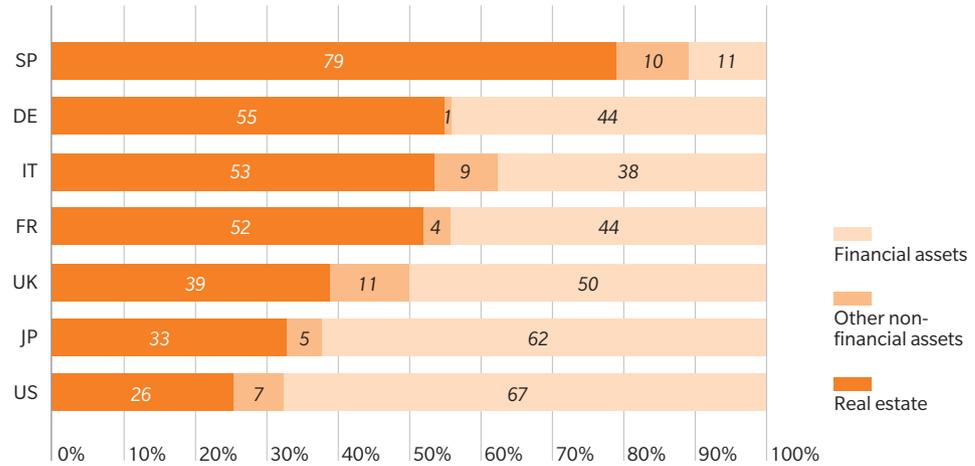
3.1.2. STRUCTURAL PRIVILEGES FOR INVESTING IN PROPERTY

Not all saving faces the tax penalties discussed above. Most notably, investing post-tax income in property avoids many of them. In most Western countries, there is no capital gains tax on properties that the owners live in. This means that it can be sensible to save by buying a nice big home, living in it until retirement, then selling it and using the untaxed gain to fund your retirement. And in many countries, including the US, such behaviour is further encouraged by making mortgage interest payments tax-deductible.

These special tax exemptions for investing in property are familiar. But the largest tax privilege has a less familiar source: namely, the lack of tax on the implicit rental of owner occupied houses. Consider an entrepreneur, Jane, who has recently sold her business for \$1 MM, just enough to pay for a house by the beach, as she has always wanted. She could buy the house for \$1 MM or rent it for \$50,000. Simultaneously, Jane's daughter Janette asks her to invest money. Jane is keen; the post-corporate tax dividend paid to Jane will be \$50,000. But she will have to pay tax on this and will end up receiving only \$35,000. So she cannot invest in the company and live by the beach. In other words, when you live in a house you own, you pay no tax on what pays the rent (namely the capital invested), but when you rent a house you do not own, you must pay tax on the income that pays the rent (namely, your income).

EXHIBIT 3: HOUSEHOLD ASSET SPLIT

% OF TOTAL HOUSEHOLD ASSETS



Source: US Federal Reserve, UK Office for National Statistics, Banque de France, Banca d'Italia, Banco de España, Bank of Japan, Bundesbank, Organisation for Economic Coordination and Development, Oliver Wyman analysis

As shown in Exhibit 3, these tax advantages lead to high levels of property investment in all our sample countries.

Investment in property can be productive when it improves the quality of housing. However, the effect of these tax incentives to invest in residential property (combined with legal restrictions on land use) is simply to drive up the value of land and existing housing stock, which contributes nothing to output or to welfare in any other way.

3.1.3. SAVERS DO NOT TRUST BANKS

Long-term savings products are “confidence goods”. That is to say, as with pharmaceuticals, most purchasers do not

understand how they work nor, therefore, which is best for them. They need guidance from a trustworthy advisor.

Alas, over recent decades, financial firms have not lived up to the standards of their medical counterparts. Of course, the returns on specific investments are more difficult to anticipate than the effects of any familiar drug. But this difficulty cannot explain the aggregate failure of the investment industry to deliver reasonable returns.

As has been well documented, most funds perform in-line with benchmarks. After fees, the average mutual fund equity investor will have seen a return of more like 1.5% in the US and 5% in Europe over 10 years (see figure overleaf). Yet these products may have been sold with return illustrations of up to 10%.

EXHIBIT 4A: US EQUITY AND BONDS MUTUAL FUNDS RETURNS VS. BENCHMARKS
10-Y ANNUAL RETURNS, SAMPLE OF FUNDS

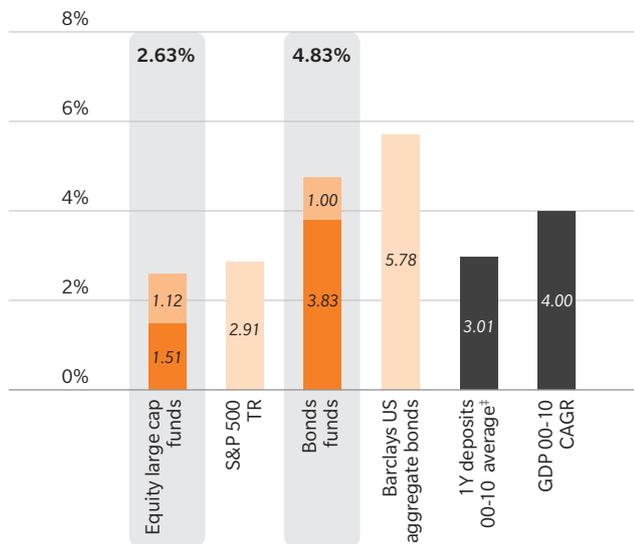
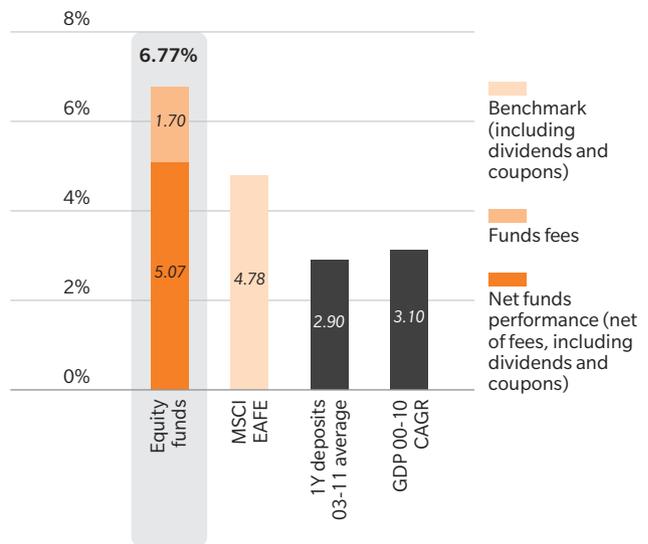


EXHIBIT 4B: EUROPE EQUITY MUTUAL FUNDS RETURNS VS. BENCHMARKS
10-Y ANNUAL RETURNS, SAMPLE OF FUNDS



Source: Morningstar, Datastream, Worldbank, ECB

‡ Certificate of Deposit rates

Note: US sample: 819 Equity Large Cap funds and 233 Bonds funds. European sample: 75 Equity funds

EXHIBIT 4C: COMPARISON OF GDP GROWTH AND EQUITY INDEX PERFORMANCE

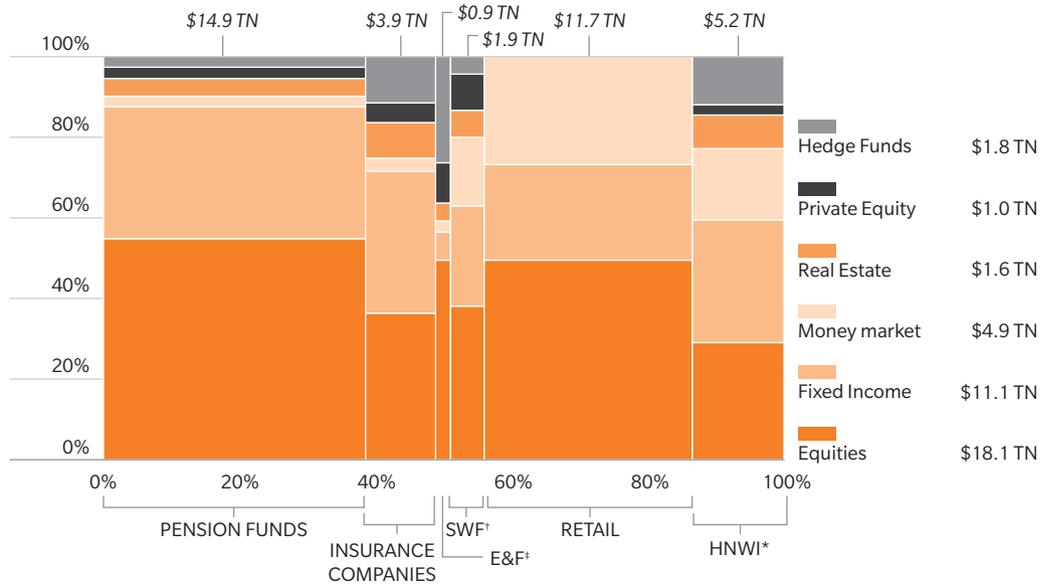
GDP/EQUITY INDEX (NET OF INFLATION) CAGR	30 YEARS (1980)	20 YEARS (1990)	10 YEARS (2000)	5 YEARS (2005)
France GDP vs. CAC40	1.8%/NA	1.5%/2.9%	1.1%/-6.2%	0.7%/-5.9%
UK GDP vs. FTSE100	2.2%/4.1%	2.0%/2.8%	1.4%/-2.6%	0.3%/-1.8%
Germany GDP vs. DAX30	1.7%/7.1%	1.4%/6.4%	0.9%/-0.9%	1.3%/3.4%
US GDP vs. S&P500	2.7%/4.4%	2.5%/4.3%	1.6%/-2.9%	0.7%/-2.1%
Japan GDP vs. Nikkei225	2.2%/1.2%	0.9%/-4.1%	0.7%/-3.3%	0.1%/-8.6%

When funds are managed by investment specialists aiming at a given return target (internally managed), the asset allocation is typically relatively conservative, with an average equity to fixed income ratio of 2:3. However,

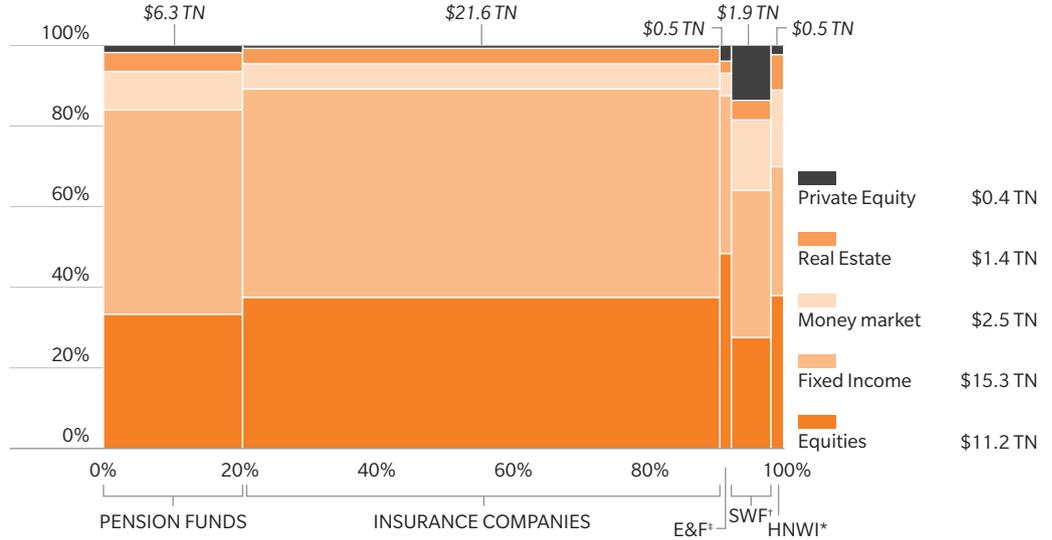
when investments are sold directly to consumers (externally managed), the resulting asset allocation is typically riskier, with an average equity to fixed income ratio of 5:3 (see Exhibit 5).

EXHIBIT 5

TOTAL EXTERNALLY MANAGED BY ASSETS \$38.5 TN



TOTAL INTERNALLY MANAGED BY ASSETS \$30.8 TN



Source: Oliver Wyman analysis
 ‡ Endowments and Foundations
 † Sovereign Wealth Fund
 * High Net Worth Individual

Allocations to risky investments, such as equities, are fine when there is evidence that consumers seek this risk. In many cases, though, they do not. When asked, “what investment product would you like?”, across all geographies, customers favoured safety over risk.

Controlling for financial knowledge shows no real increase in the appetite for high risks, but does show that consumers recognise that they need to get real returns (Exhibit 6).

Retail customers need these real returns, and there is a good case for advising them to have a balanced portfolio. But, over the long-term, the industry cannot deliver returns above GDP growth. A low cost portfolio delivering stable returns is the correct goal for many customers. The challenge is for

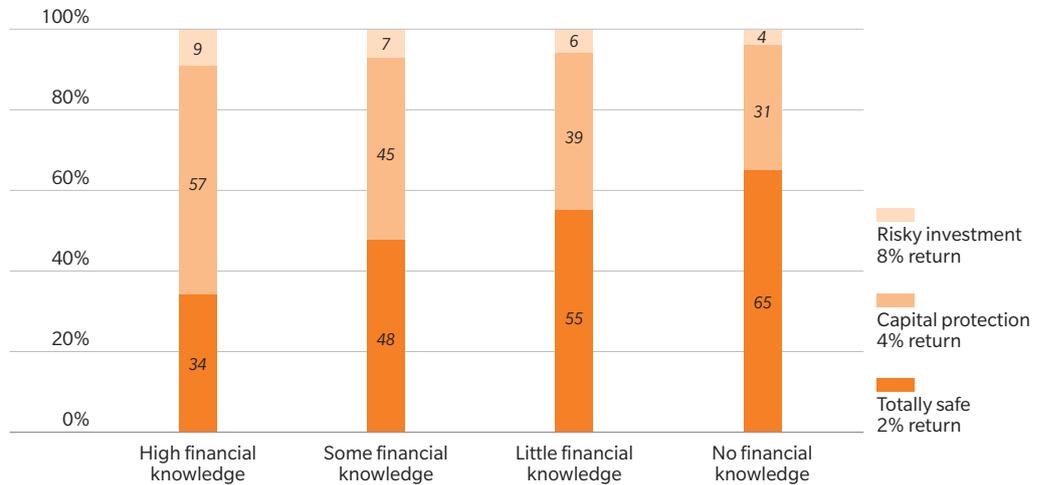
the industry to find new ways to deliver this given the volatile or nominal returns offered by many asset classes.

Most consumers are neither financially literate nor very interested in financial services. In developed nations, the majority attend carefully only to big decisions, such as mortgage or pension purchases, but not on-going decisions about matters such as transferring money out of under-performing investments or changing the amount they allocate to rainy day savings (see Exhibit 7).

The products financial firms sell are adapted to the fact that customers do not wish to devote much time or energy to financial matters, and are unlikely to closely monitor their investment decisions over time. This encourages firms to offer attractive headline-

EXHIBIT 6*: WHAT WOULD YOU PREFER FOR YOUR SAVINGS, BETWEEN THE THREE FOLLOWING PRODUCTS?

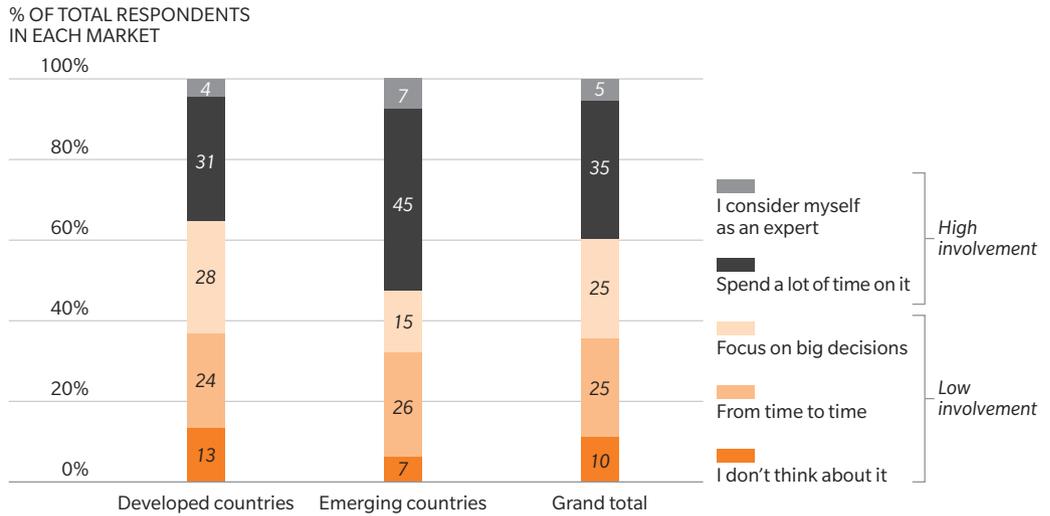
% OF TOTAL RESPONDENTS BY FINANCIAL KNOWLEDGE LEVEL (SELF-ASSESSED)



Source: Oliver Wyman Global Consumer Survey December 2011

* Oliver Wyman commissioned a survey of over 1,200 consumers in the US, UK, Germany, France, Japan, India and China in December 2011. The survey was run online and conducted by ResearchNow. This is the survey to which we refer as the “Oliver Wyman Global Consumer Survey December 2011”.

EXHIBIT 7: WHEN YOU THINK ABOUT FINANCE, WHAT STATEMENT MOST CLOSELY FITS YOUR ATTITUDE?



Source: Oliver Wyman Global Consumer Survey December 2011

Note: Developed countries – USA, UK, Germany, France, Japan; Emerging countries – China and India

grabbing prices that are not ultimately delivered (because they would be loss-making for the firm). This can be achieved in many ways, such as:

- Selling ancillary products alongside the core products at high prices (e.g. loan protection insurance)
- Progressively widening the margins over time (e.g. deposit prices)
- Selling returns to customers, but underplaying the risks. If it works out: “my good advice”, if not: “poor markets”
- Excessive churning of the portfolio to generate fees.

It is rational for each financial firm to compete in this way because few customers can resist “special deals” and high headline returns. Acquiring customers at one price when they are shopping and are price sensitive, then increasing the price on them over time (as they become inert) is strategically optimal.

Customers are not blameless when it comes to the prevalence of opaque pricing of financial products. For such pricing is partly a reaction to customers’ reluctance to pay a sustainable, transparent price (see Exhibit 8). Alas, the consequent opacity of financial firms’ pricing only perpetuates the problem, since it reinforces the idea that customers should not have to pay for what they receive from financial firms.

EXHIBIT 8A: WHAT PROPORTION OF THE RETURN DO YOU THINK YOUR FINANCIAL INTERMEDIARY SHOULD GET FOR INVESTING YOUR MONEY, KEEPING IT SAFE AND PROVIDE ADVICE AND REPORTING?

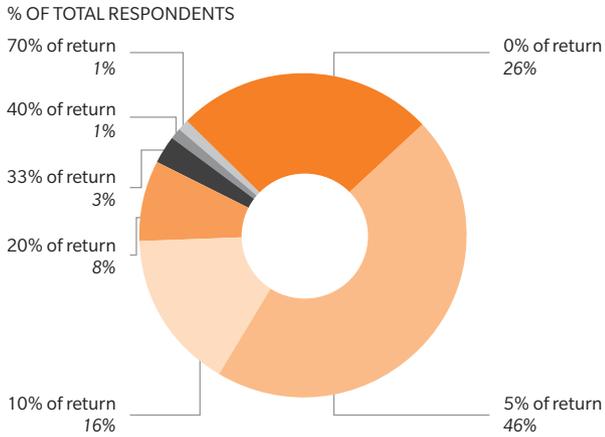
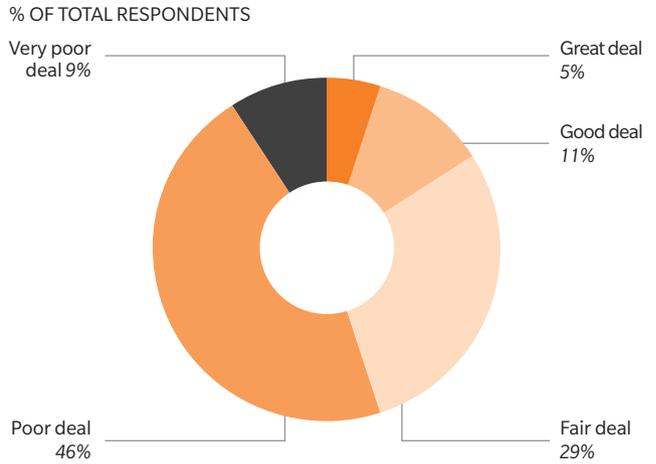


EXHIBIT 8B: WHEN YOU THINK ABOUT THE FINANCIAL INDUSTRY, WHAT STATEMENT MOST CLOSELY FITS YOUR ATTITUDE?

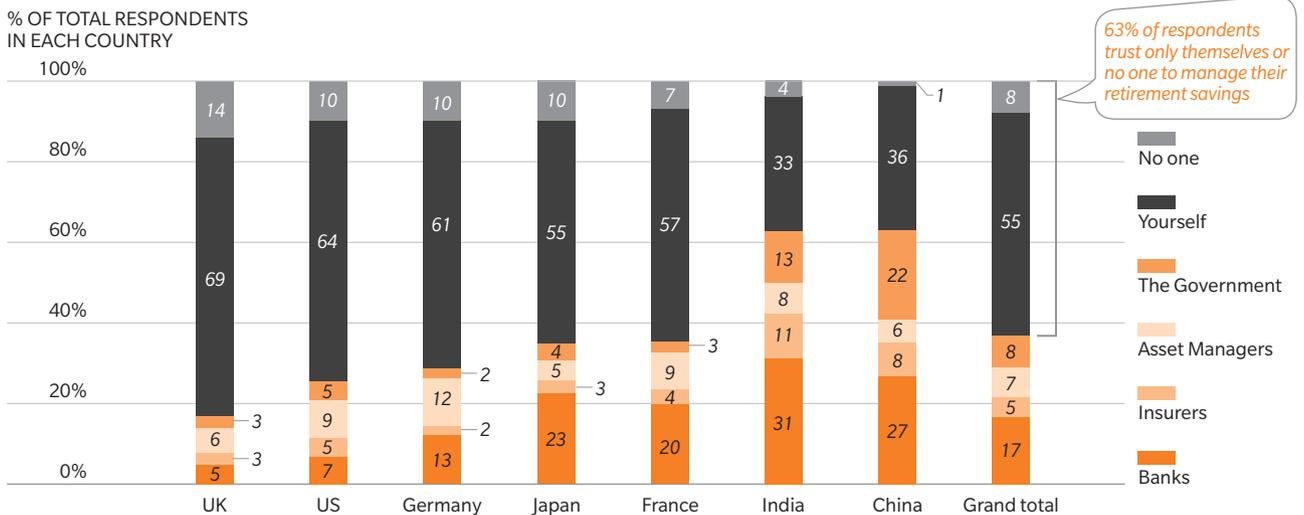


Source: Oliver Wyman Global Consumer Survey December 2011

Given these strong incentives to give their customers a “bad” deal relative to the advertised price, and a long history of actually doing so, it would be extraordinary if banks were trusted businesses. And, indeed, they are

not. Most consumers don’t trust banks and insurers to manage their savings and in fact only trust themselves. This is particularly acute in the developed nations where customers have most experience of the financial sector.

EXHIBIT 9: WHO DO YOU TRUST THE MOST TO MANAGE YOUR RETIREMENT SAVINGS?



Source: Oliver Wyman Global Consumer Survey December 2011

This lack of trust in financial intermediaries deters customers from committing their funds long-term. 38% of customers who are reluctant to commit to long-term savings

have reasons unrelated to the industry but, for the rest, the industry itself is the obstacle (see Exhibit 10).

3.2. FRAGMENTED FINANCIAL SERVICES INDUSTRY

The current “division of labour” between banks and insurers creates inefficiencies in the intermediation system.

interbank funding and central bank funding). The duration mismatch between loans and deposits and liabilities is estimated at around +5 years.

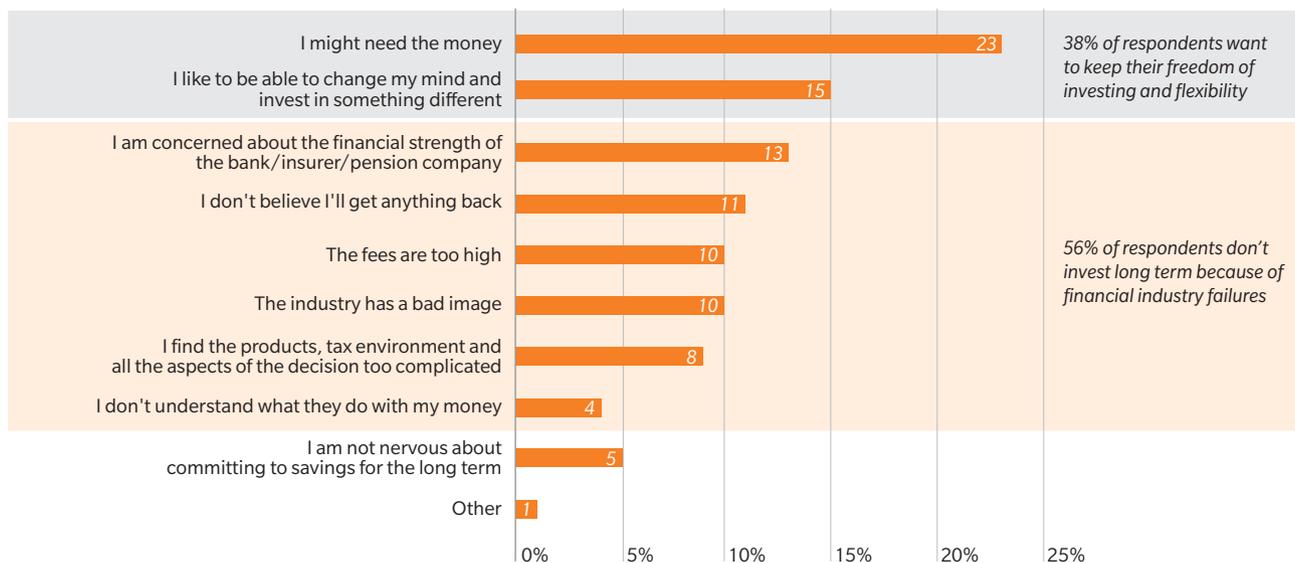
Banks have grown up as a safe haven for money. They typically collect deposits and short-term savings from customers, and provide these customers with returns by lending their funds to borrowers, usually at a longer maturity than the deposit. Banks thereby perform a maturity transformation from short-term funding to long-term financing (see Exhibit 11). Around 60% of medium and long-term assets (mainly corporate loans, mortgages and bonds) are funded with short-term liabilities (deposits,

Insurers and pension funds typically sell long-term savings products and invest in long-term and low-risk assets. Nevertheless, they perform a reverse maturity transformation, because they invest shorter term than their liabilities.

This occurs for three reasons. Firstly, it is hard for them to invest as long as their liabilities, so they often try to eliminate their interest rate risk via the derivatives markets

EXHIBIT 10: IF YOU ARE NERVOUS ABOUT COMMITTING TO SAVINGS FOR THE LONG TERM, WHY IS THAT?

% OF RESPONDENTS



Source: Oliver Wyman Global Consumer Survey December 2011

and then effectively become LIBOR (or equivalent) denominated portfolios, which gives them a short-term rate benchmark.

Secondly, as funds are increasingly unitised, they need to offer the customer the option of switching between different asset classes – say, from Asian equities to American bonds. Delivering such ease of switching requires the manager to maintain liquidity in unit funds even though the underlying need is very illiquid and switching achieves little.

Finally, risk regulations discourage investment in long-term assets (a matter we expand on in Section 3.3.2). As a result, the medium or long-term (MLT) liabilities of the insurance and pension industry are 163% of its MLT assets, with an associated (reverse) maturity mismatch of 5 to 15 years, depending on countries and products.

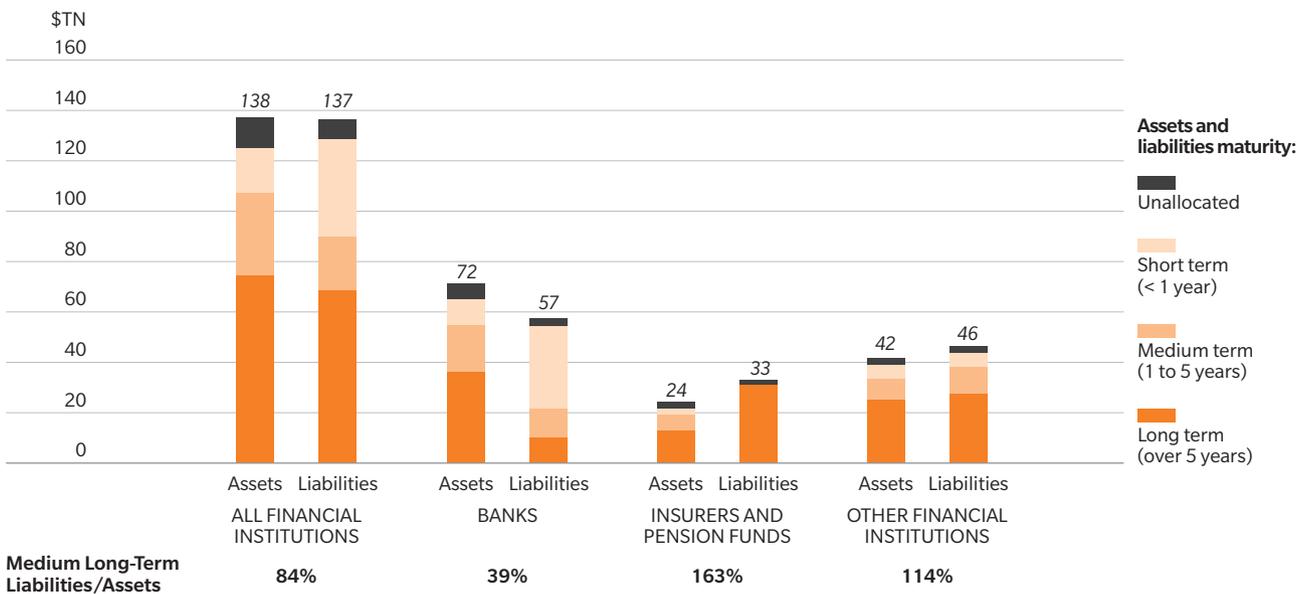
Other financial intermediaries (including asset managers, brokers and advisors) barely transform maturity because they are matchmakers rather than genuine intermediaries, not borrowing or lending themselves but simply matching buyers and sellers of products.

The separation of insurers and banks creates inefficiencies in the system because the long-term savings of households are mostly directed towards insurers, and insurers do not lend money to corporates, except via the capital markets. Companies that are too small to issue tradable bonds are denied access to the long-term savings that go to insurers.

Prior to the financial crisis, the banking sector – denied long-term funding from households – could satisfy corporate sector demand for borrowing by issuing vast quantities of paper of various types to the

EXHIBIT 11: MATURITY BREAKDOWN OF ASSETS AND LIABILITIES IN THE FINANCIAL SECTOR IN 2010 (EUROZONE, UK, US AND JAPAN)

INTRA FINANCIAL SECTOR CLAIMS EXCLUDED



Source: US Federal Reserve, Bank of Japan, Bank of England, European Central Bank, Oliver Wyman analysis

capital markets. Since the crisis, however, banks' ability to fund themselves via the capital markets has declined sharply. As we write, many European banks depend on central bank funding. Nor have insurers

and pension funds shown material appetite for stepping into the breach and lending directly. The industry is thus failing to supply the capital needed by the corporates: banks can't and insurers won't.

3.3. CONSTRAINED INTERMEDIARIES

3.3.1. BANK LIQUIDITY REGULATION

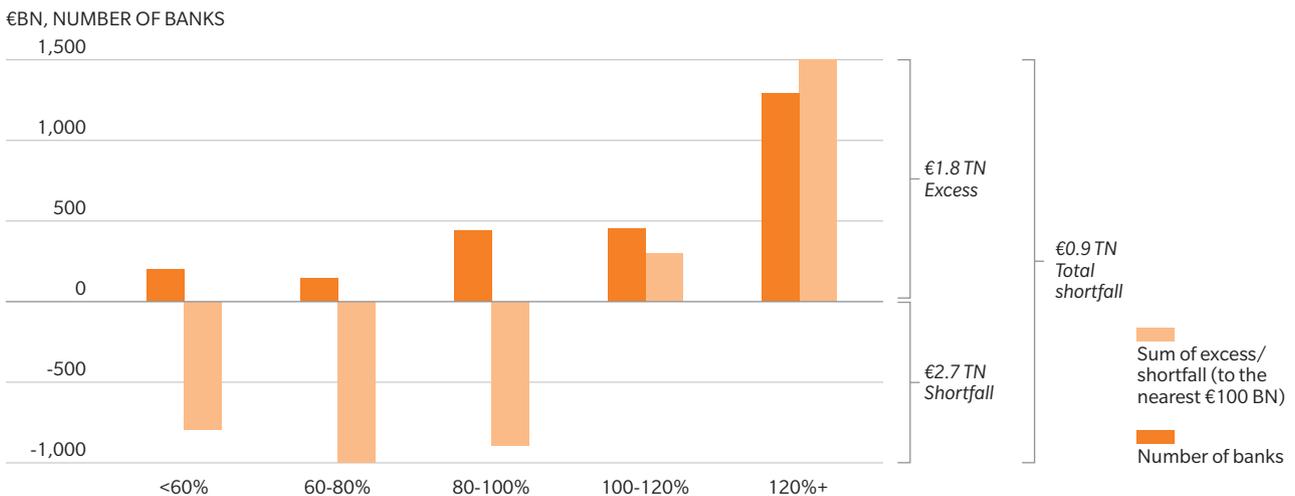
New banking regulation, especially Basel III, aims to limit systemic risk by making banks hold more and better capital and by reducing maturity transformation, requiring banks to maintain a Net Stable Funding Ratio (NSFR) of 100% or greater.

The NSFR seeks to calculate the proportion of long-term assets that are funded by long-term, stable liabilities. Stable funding includes customer deposits, long-term wholesale funding and equity. It excludes short-term wholesale funding. These components of stable funding are not

equally weighted but intended to give a "risk-adjusted" view of stable funding. Long-term assets are loans as well as government and corporate bonds. Off-balance sheet categories are also weighted. Again, the assets are weighted with government bonds having a lower weight (20%) than term loans (100%).

We estimate that in Europe, for example, this NSFR requirement will require banks that are now short of stable funding to raise ~€2.7 TN of additional long-term debt (see Exhibit 12). Of course, some banks have surplus stable funding (as judged by the NSFR rule). If their surplus is netted off the others' deficit, the aggregate industry shortfall is ~€0.9 TN.

EXHIBIT 12: NSFR DISTRIBUTION FOR EUROPEAN BANKS



Source: Oliver Wyman analysis

Some of this will come from new long-term bank debt and increased deposit gathering – which will be expensive – and some from reduced long-term lending.

3.3.2. SOLVENCY II REGULATIONS FOR INSURERS' CAPITAL

Solvency II regulation aims to strengthen insurers' financial stability by increasing the capital they are required to hold. However, it has moved far beyond the rules that apply in banking by applying an almost totally mark-to-market regime on insurers. This can introduce significant volatility as a small change in spread gives a significant change in capital position (due to the duration effect of longer-date instruments). While there is some relief for those that perfectly match assets to liabilities through the

“matching premium” regime, in reality, not all insurers will use this. This depresses the return on long-dated risky assets (e.g. loans and equity), making shorter-term and safer assets relatively more attractive. This reduces insurers' capacity to finance the real economy by buying corporate bonds and equity, which are penalised in Solvency Capital Requirement (SCR) calculations.

Most corporate pension schemes are switching to defined contribution (DC) from defined benefit (DB) and de-risking the residual pool to protect the corporate sponsor. Most of these DB schemes are in deficit and their investments are therefore likely to be conservative. As mentioned above, most DC products are marketed as liquid and thus offer the consumer the ability to switch in and out of them, thus limiting the ability to perform maturity transformation.

4. IS THERE A SOLUTION?

How might the financial industry change to perform its central intermediation function more effectively, encouraging savings and capital formation? In this section, we sketch some answers, which concern three broad areas: the character of financial institutions, the products they sell and the regulatory regime that applies to long-term savings and financial intermediation.

4.1. FINANCIAL INSTITUTIONS

4.1.1. A NEW “DIVISION OF LABOUR” AMONG FINANCIAL FIRMS

Financial institutions with access to illiquid and cheap funding – notably, insurers and pension funds – are best positioned to become the long-term corporate and mortgage financiers.

However, taking on this role will not be a trivial task since institutions that are now focused on managing liabilities are relatively inexperienced and unskilled at originating and managing loans. They will need to change their governance, with new mandates and risk policies, and acquire new skills all along the credit value chain – origination, pricing, syndication, credit and portfolio management, middle and back office – or outsource to third party agents who provide them.

In the UK, the volume of loans issued by insurance companies has increased by around 40% over the last three years, now representing 2% of total assets.¹ In the

Eurozone, loans issued by insurance companies have increased by 15% over the last three years, now amounting to 7% of total assets.² As banks retreat from some lending activities, we see some insurance companies entering or accelerating corporate lending – such as L&G and Allianz, who recently announced significant initiatives in real estate lending.

Intermediaries may also divide between those that link savers to safe borrowers and those that link them to risky ones. The first class of intermediaries might naturally comprise banks, insurers and pension funds, all of which operate under regulatory and reputational constraints. The second class would more naturally comprise asset managers, hedge funds, private equity funds, and sovereign wealth funds, which specialise in investing the capital of customers willing to take risks. This is what they already do, of course. But we expect them to pick up market share as banks and insurers are driven back towards more conservative lines of business.

¹ Source: UK Office of National Statistics.

² Source: ECB.

Such a risk-based split of activities can already be observed. Driven by regulatory pressure, banks are spinning off or selling their proprietary trading units and insurers are disposing of their private equity funds.

4.1.2. MATCHMAKING

As balance sheet intermediation becomes more costly for financial institutions, pure “matchmaking” operations – which merely introduce borrowers to savers, who then contract with each other directly – will gain market share. The now widespread use of internet-based communications makes such business more viable than ever. The key will be to offer technology that allows customers to diversify their risk and to monitor and manage their investments effectively.

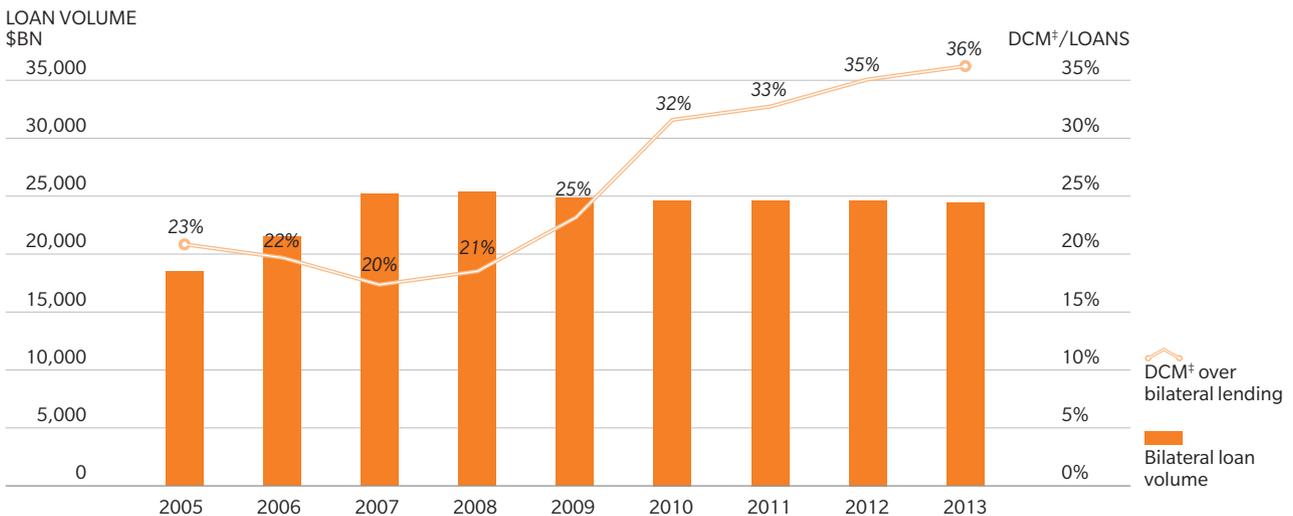
Such businesses are already emerging, though they are currently very small. For example, Zopa is a UK-based person-to-person (P2P) lending platform. It allows users to lend anything from £10 to £25,000 to a selected risk profile of borrowers. Each lender’s funds

are split between a number of borrowers. Borrowers can apply for loans up to £15,000 and pay the lowest rate offered for their risk-class by the pool of lenders. Similar institutions in other countries include Lending Club (US), Prosper (US) and Smava (Germany).

Such “intermediaries” will benefit from the emergence of other businesses that reduce their risk and operating costs. For example, specialist agents will provide underwriting expertise and other firms may create a secondary market by purchasing loans from lenders seeking early repayment. Such third-party services will allow small players to compete in commoditised markets and potentially expand beyond their niches.

Banks already play a role in the “matchmaking” market by helping corporates issue bonds which are purchased directly by lenders. In the face of rising intermediation costs, they are likely to extend this line of business by helping more mid-sized corporates issue bonds rather than lending to them (see Exhibit 13).

EXHIBIT 13: CORPORATE LOANS VS. BONDS VOLUME



Source: Economist Intelligence Unit, Dealogic, Oliver Wyman analysis; Scope: 20 biggest countries by GDP
 ‡ Debt Capital Markets

4.1.3. SIMPLER, CHEAPER BANKS

Customers are reluctant to pay the increasing capital and liquidity costs of intermediation. Since these are largely a regulatory imposition which banks cannot control, they must seek to cut their operational costs. How can they achieve this while continuing to provide customers with the financial services they demand?

First, banks will decrease costs by closing branches and slimming those they retain. By 2020 “bricks and mortar” distribution will have declined dramatically. We expect banks and insurers to shift so far towards an online delivery model that up to a quarter of their costs will be eliminated. The cost-cutting initiatives underway in most Western banks today will, in retrospect, appear modest.

Other industries have gone through similar transformations: the travel agency, for example. Only a few years ago, travel agencies acted as intermediaries between the suppliers and consumers of travel (flights, train journeys etc.), providing their services through networks of “bricks

and mortar” shops. Customers could not avoid travel agencies and paid high fees for simple intermediation. The internet has now changed the industry, which has become almost completely online, with massive cost reductions passed on to customers. Scale platforms now service the industry globally. For basic retail and transactional banking, something similar will almost certainly occur.

Decreasing the number and complexity of products will also reduce infrastructure and staff costs. Banks that pursue this strategy will make a virtue of their “utilitarian” offering. They will be the Volkswagens of banking, providing a service whose low costs and simplicity matches most customers’ needs (see also Section 4.2 on products).

To enhance trust, “Volkswagen” banks should aim at maximising transparency. Beyond simplicity of products and fee structures, they could publish anonymised account data to allow fair long-term cost and performance comparisons. And they could develop and publish measures of their own solvency and liquidity that are comprehensible to consumers as well as regulators.

4.2. SAVINGS PRODUCTS

Our customer survey delivers some tough messages for the industry regarding savings products. Consumers think they do not get value for money; they trust only themselves to manage their long-term savings and

safety is their priority (see Exhibits 6 and 9 in Section 3). The industry must build simpler, cheaper and safer savings products with realistic return promises. We discuss two broad suggestions.

First, the industry needs to solve the information problem, allowing savers to shop on the basis of true long-term returns; something as close as possible in an uncertain world to “what you see is what you get”. Several options could be explored:

- Create an independent entity that collects and discloses relevant information about products (price, features, returns) and scores them using a standard methodology. In the UK, Fair Banking (<http://www.fairbanking.org.uk>) is trying to do this, improving on the offering of Which?, the consumer advocacy magazine, which is overly focused on headline rates
- Employ the social networks model whereby customers provide each other with reassurance about products’ suitability: “People you know bought this mutual fund”, “People like you bought this pension plan”. The Weight Watchers model could also be applicable to financial services, with “leaders” providing counsel to groups or peers to help them make good financial choices

- In advertisements, specify deposit and investment returns based on to their long run, average return to customers, not based on promotional terms
- Establish a state-owned or not-for-profit entity to offer standard or reference products that provide benchmarks for returns and price. This has been achieved without destructive market distortions by SBAB in Sweden and Kiwibank in New Zealand

Second, product pricing should better reflect returns to liquidity. Realistic, long-term returns should be close to real GDP growth, which has been around 2% over the last 30 years in developed countries. Our consumer survey shows that there is considerable appetite for a product that would offer a 4% return (average nominal GDP) with a capital guarantee locked for ten years. We challenge the investment industry to invest to develop and deliver this suite of products to clients in a manner which is both profitable for the producer and cost-effective to the client.

4.3. REGULATION

4.3.1. TAXES ON LONG-TERM SAVINGS

As noted in Section 3, the current monetary, tax and financial regulation regimes deter long-term saving. Many of the structural disincentives to long-term saving come from the double taxation of dividends, interest, capital gains and inheritance. And the tax exemptions for real estate draw much investment away from business

development. Policy makers could do much to promote saving and, hence, economic growth by eliminating these tax distortions.

Alas, it is unlikely. Double taxation applies mainly to the incomes of “the rich”, while “tax breaks for the rich” are politically unpopular. Eliminating taxes on savings is, in fact, perfectly consistent with highly progressive taxation. For example, a government that eliminated tax on interest earnings could

simultaneously increase the top rate of income tax. But this is probably too subtle a point for modern democratic politics. Indeed, in many European countries, it is more likely that the few tax reliefs for savings that now apply to private pensions will be eliminated for the sake of raising extra revenue for governments running unsustainable deficits.

In this environment, compulsory private savings may be a more politically viable way of increasing long-term savings rates. Such schemes have been introduced in Chile, Singapore and Australia. As the pay-as-you-go state pension schemes of many Western countries come under pressure from aging populations, such compulsory, privately-funded schemes are likely to be increasingly appealing to Western governments. However, they are politically difficult to introduce during an economic downturn, since the compelled savings dramatically reduce the current incomes of already financially stretched voters. We believe such compulsory private schemes will become more widespread but will not be introduced until the current downturn is well behind us.

4.3.2. FINANCIAL SECTOR REGULATION

A policy decision has been made in all countries that comply with Basel regulations to make banking safer – or, more specifically, to apply higher regulatory capital and liquidity minima. Similar requirements in Solvency II aim to make insurance firms less likely to become insolvent.

As noted in Section 3, this is driving up the cost of long-term borrowing. Up to a point, this is an intended effect of the policy. If the cost of US mortgage borrowing had been higher, the financial crisis might not have

happened. Beyond a certain point, however, driving up the cost of borrowing is a greater social cost than the risk it eliminates. Alas, bright lights do not miraculously switch on when this point is reached. Regulators have the difficult task of finding the right trade-off between systemic safety and the cost of financial intermediation.

Given the widespread view that regulation was too lenient pre-crisis, regulators are now likely to err on the side of safety, imposing costs on financial intermediation that exceed the benefits in reduced risk.

The consultative process between regulators and financial institutions can help offset this tendency, alerting regulators to likely unintended consequences of proposed regulatory changes. To be effective in this process, financial firms must approach such consultations honestly and openly. Lobbying that exaggerates the likely cost of regulatory burdens will only encourage irritated regulators and politicians to impose their wills on the industry, with potentially calamitous effects.

Much thought has been given to bankers' incentives and their effect on systemic risk. Similar thought should be given to regulators' incentives. As things stand, they have a strong institutional bias in favour of safety; they will lose their jobs for a large bank failure or financial crisis, not for a long-term suppression of valuable financial intermediation. Regulators might be better incentivised to find the right trade-off between safety and cost if they had a "dual mandate" to consider both in the way that the Federal Reserve has a dual mandate to seek low inflation and full employment. (Precisely how the performance of this dual mandate could be measured, again, we leave to our more creative readers.)

Industry-wide business failures are sometimes caused by a collapse of demand for what they supply. That is what went wrong for blacksmiths after the invention of the automobile. But it is not what went wrong for financial firms in 2008. There is still plenty of demand for financial intermediation.

So it should be readily supplied. The failure of the previous or current business models of financial firms ought to be no impediment to supply but simply an opportunity for managers and entrepreneurs with new ideas about how to deliver financial intermediation. We are confident that the profit motive will combine with human ingenuity to deliver new ways of bringing together savers and borrowers, many of which we cannot now imagine. As for what

we can imagine, we expect a bigger role for technology, cheaper products and safer institutions. In short, we expect the financial services industry to shift from the pre-crisis model built on leverage to one built on value-added.

Yet our optimism is far from unbounded. There are high barriers to entry to most parts of the finance industry, which are heavily regulated and whose profits often depend on scale. And the market mechanism for eliminating failed business models is stymied by the policy of bailing out institutions deemed “too big to fail”. The shift towards the value-added model is likely to be only partial and slow. Grossly inefficient financial intermediation is likely to persist for the foreseeable future and, with it, the high cost it imposes on society.

The ideas in this report reflect many contributions from across Oliver Wyman. The primary authors, in 2012, were Matthew Sebag-Montefiore and Jamie Whyte supported by Hugues Bessiere, Jonathan Livescault, Ludovic Auffray and Julie Chatelard. The authors drew on the contributions of many partners across the firm, but in particular wish to acknowledge the help of John Whitworth and Matthew Gosden in developing and helping frame the initial concept for the report and Michael Poulos, Michael Zeltkevic and Emmet Rennick for challenging the ideas in the report along the way.

