

# European Insurance

## QE Does Not Derail Our Positive View of the Sector

- **Reacting to lower yields in Europe:** Citi economists expect the ECB to lower interest rates and to initiate further QE later in 2014. We believe this has been one of the drivers of the 4% underperformance of the European insurance sector over the year to date. We believe investor concern over low yields is understandable, given the sector's dependence on investment returns and guaranteed life products in many European markets. However, we think this is a shorter-term distraction from what we continue to see as a positive outlook for the sector. We believe the pressure on business models from Euro QE may be less than the market perceives.
- **There are a number of mitigating factors:** the market often applies a blanket approach to insurance companies, which we believe misses a number of important factors that mitigate the adverse impact of low yields.
  - Life insurers have already adapted to a low yield environment, with asset-liability management, lower policy payouts in guaranteed savings products and a shift in business mix away from these products towards protection/unit-linked products.
  - Non-life re/insurers have proactively improved u/w returns to offset low yields, are seeing positive reserve releases from lower-than-anticipated claims inflation and can selectively re-risk assets to offset lower risk-free yields.
  - Many stocks have limited exposure to Euro bond yields or Euro-based liabilities, and are also positively geared to Citi Economists' expectation of *rising* long-term bond yields in the US and UK.
  - Citi economists and strategists expect QE to be positive for equity markets and economic conditions, which is potentially positive for stocks geared to improving economic activity or equities-based savings products.
- **Modest impact on valuations:** arguably lower bond yields over the YTD (particularly in Europe, with the 10-year Bund yield down by >50bps) are already anticipating some of the impact of QE. However, our modelling of a further ~30bps reduction in bond yields (consistent with a €1trn asset purchase programme towards the end of 2014e and beyond), suggests a limited impact on the sector overall of ~1% reduction in valuation (see Figure 3).
- **Top picks:** weakness in the sector due to QE concerns may provide buying opportunities: 1) AXA, which we believe offers an attractive valuation, with positive gearing to higher yields in the US and less fundamental exposure to lower Euro yields than the market may perceive; 2) Esure, which is supported by a compelling 6.5% yield and has considerable upside potential when the UK motor market improves; 3) Prudential – a stock with little or no exposure to Euro yields, and upside from improving fundamentals and margins in its US life business (as well as its growth operations in Asia).

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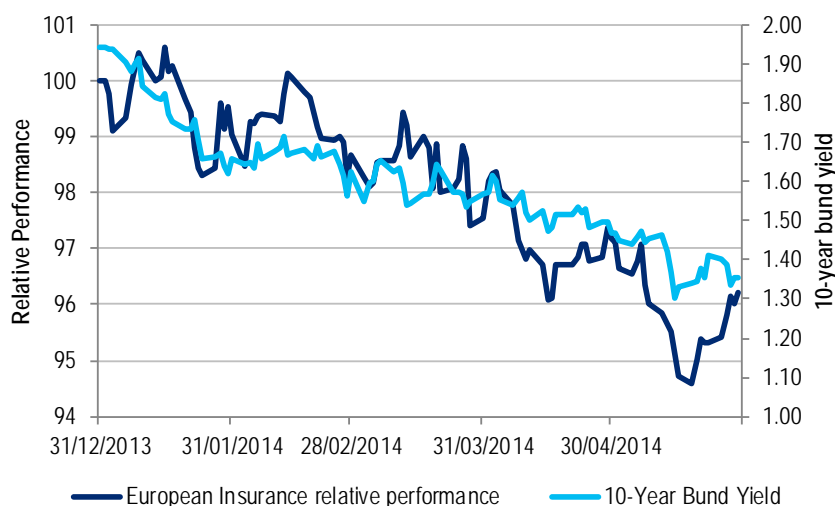
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## European Insurers and QE

Figure 1. European insurance sector relative performance vs. Bund Yield - YTD



Source: Factset, Citi Research

### ECB to consider 'non-conventional' options to combat the risk of deflation

Citi economists and strategists believe that ECB is likely to consider 'non-conventional' options to combat the risk of deflation in the Eurozone. We would refer you to the following recent reports: [Euro Economics Weekly: How Might QE Affect Financial Conditions?](#) and [European Portfolio Strategist: Convergence Trade II - Don't Fight the ECB](#).

You can read these reports for a more detailed insight into our economic and strategy views, however to summarise:

### Asset purchases are likely in late 2014

- The timing of QE remains uncertain, but non-conventional measures (e.g. asset purchases by the ECB) are likely to be more effective closer to the end of 2014, after the end of the Asset Quality Review of European banks. At this stage, the ECB should be in a better position to judge balance sheets and, therefore, where to direct the opportunity to support fresh lending. Our economists expect a ~€1 trillion programme (~10% of GDP) initially.

### Citi economists expect 40-50bps yield compression

- Based on historical data on the US and UK QE programmes, our economists conclude that QE should result in ~40-50bps of yield compression. We note that the 10-year Bund yield has already fallen by this amount (or slightly more) over the year-to-date. It is difficult to say to what extent there could be further compression once asset purchases take place.

### Citi strategists expect a ~20% positive impact for equity markets

- Our strategists and economists believe QE will be positive for equity markets. Although Euro QE is taking place at a different point in the equity market cycle from US and UK QE (where equities were at lower levels than now), we expect a ~20% positive equity market uplift from QE.
- Citi economists expect there to be a moderate benefit to bank lending rates, which should benefit financial conditions; although the direct impact on GDP growth is uncertain.
- Clearly there remains a lot of uncertainty over the precise mechanism of QE (e.g. which assets to buy), its timing and what the economic/macro effects may be.

**Pressure on the sector is understandable though has been modest to date**

The prospect of QE raises the question of how low bond yields may pressure the fundamentals of the European insurance sector. Following two years of strong outperformance, the sector has underperformed over the year to date, we believe partly due to concerns about lower long-term bond yields in Europe. Although it is worth noting that this underperformance has been slight (~4%) compared with previous periods of macro concern in the sector.

**Dependence on investment returns and guaranteed products present a risk**

This is understandable. The sector derives a large proportion of its profitability from investment returns in both life and non-life insurance; and in the life sector there is the added worry over possible investment margin compression in traditional guaranteed life savings policies in Europe.

**We expect modest impact on valuations and stronger markets are positive**

However, we believe QE does not derail our positive view of the sector. There may be scope to adjust stock allocation to those that may be least affected (e.g. UK insurers); however, we believe the fundamental impact on either earnings or valuation for the sector as a whole is likely to be limited. Some aspects of QE may actually *benefit* the sector, given its effect of supporting economic conditions, consumer sentiment and equity markets.

We would highlight the following factors:

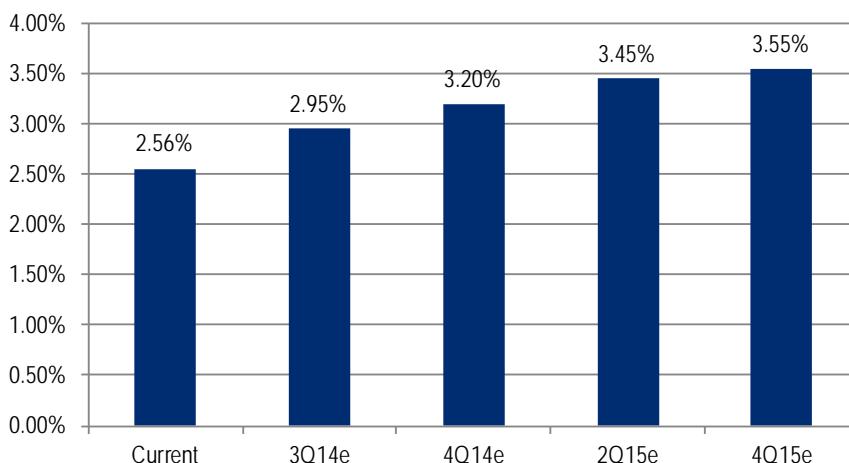
**Lower European yields already pricing in ECB action**

- It is possible to argue that yield curves in Euroland have already priced in a lot of the anticipated impact of QE over the year to date, e.g. the decline in the 10-year Bund yield (and this is largely factored in to our embedded value/earnings forecasts). However, even if we examine a scenario of a further 30bps decline in bond yields across the curve, we believe the valuation impact on the sector overall would be moderate at ~1%. We show our calculations by stock below, and note that even the most yield sensitive stocks have a fairly limited impact.

**Yields in US and UK continue to increase**

- Our companies have substantial exposure to the US and UK markets, where we expect tapering and higher yields to emerge in the next two years. For example we forecast UK 10-year yields to rise towards 3.5% by end 2014e (currently around 2.65%) and US 10-year Treasury yields to rise to 3% and beyond from end 2014e onwards (currently ~2.6%). In the US, Citi fixed income strategists believe that lower yields have been driven by recent weakness in US economic data, but that this is temporary with prospects for strong economic growth to come through in the next few quarter – driving up rate expectations.

Figure 2. Citi forecasts for 10-year US Treasury yield



Source: Citi Research

**Positive equity markets would be supportive for the sector**

- If Euro QE is positive for equity markets, and economic sentiment, then this should also benefit the sector. As we discuss further later in this note, life insurers in Europe are increasingly geared to fee income and unit-linked products that would benefit (both in terms of growth and fund values) in a rising equity market. Commercial P&C insurers and reinsurers also potentially benefit from improving economic activity.

**Life insurers have improved ALM and reduced payouts to policyholders**

- We also highlight mitigating factors that lessen the downside risk from lower bond yields for life and non-life insurers:

- ALM policies (e.g. asset-liability duration matching), and flexibility to reduce payouts in traditional life policies, has mitigated some of the pressure on life insurance investment margins from low yields. AXA, for example, has demonstrated little correlation between reported investment margins and lower bond yields in Europe, due to these factors. In addition, an increasing exposure to fee-based and underwriting based revenues lessens interest rate risk.

**Non-life insurers benefit from pricing discipline and higher reserve releases**

- In non-life, there is substantial evidence that a low yield environment has been positive for underwriting discipline, as insurers offset the impact of lower investment returns with better pricing and expense ratios. In addition, a low inflation environment may support reserve releases from prior year business, as inflation assumptions built into historic claims reserves turn out to be too high. Finally, we point out the potential for asset re-risking in the sector, which can offset some of the pressure from lower risk-free yields.

## Our Stock Recommendations

**The best way to play these themes:**

Given these drivers, we remain positive on the sector and would look at QE as an opportunity to switch into stocks with:

**1. Overweight US/UK and underweight Europe**

- **Overweight US/UK and underweight Europe:** Attractive valuations that have low gearing to Euro-based business or yield curves; with positive gearing to potentially rising US or UK yield curves. We would highlight Prudential in this context, which is currently benefitting from strong margin and growth trends in its US variable annuities business.

**2. High yield stocks**

- **High yield stocks:** Stocks with attractive dividend yields (offering a spread over risk-free risks); with little risk to payout policy in the medium-term – here we would highlight Esure, which also benefits from no exposure to Euro yields. We see it as extremely well positioned to benefit from an improvement in UK motor prices, which we expect in late 2014.

**3. Undervalued European stocks**

- **Undervalued European stocks:** Stocks with Euro-based businesses, where we believe QE and yield curve concerns have been overdone, creating an attractive valuation opportunity. We would highlight AXA in particular, which at ~8x 2015e P/E trades at a discount to its major composite insurance peers, and where we continue to see earnings upside from a more profitable business mix in the life business, improved reserving in US variable annuities and cost-cutting in P&C.

## Sector Valuation Sensitivity to Lower Yields

**Euro bond yields may already price in ECB action**

**We estimate a further 30bps yield decline only lowers valuations by ~1%**

As we pointed out in the previous section, Euro bond yields (e.g. the Bund yield) have already declined significantly since the start of 2014e, in our view partly anticipating the likelihood of lower Euro interest rates and QE. For example the 10-year Bund yield has declined by >50bps since the start of the year. This is consistent with the level of yield curve decline that would be expected from a €1 trillion asset purchase programme based on the experience of QE in the US and UK markets in the past few years.

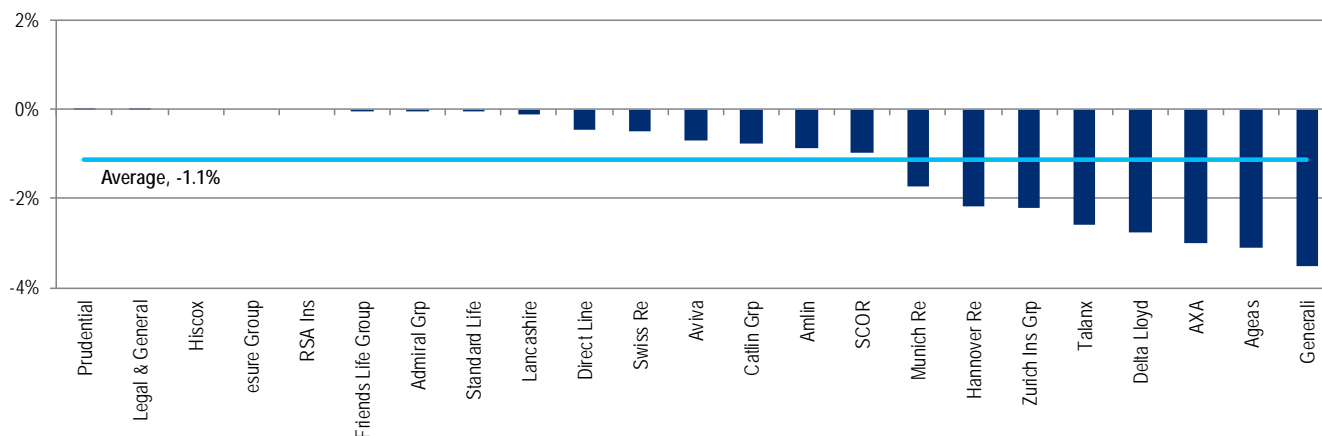
It is difficult to say what further impact QE may have on yield curves. However, we have tried to model the impact of a further 30bps reduction in yield curves on the *valuation* of the sector – in Figure 3. This suggests a very limited ~1% reduction to valuation.

It is important to note that many of the stocks analysed (e.g. especially UK-listed insurance companies) have limited exposure to Euro bond yields. Even those with the greatest downside exposure in this chart have a relatively low gearing, due to many of the mitigating factors that we discuss in the next two sections.

In our modelling we have made the following assumptions:

- We have only modelled a 30bps reduction in Euro bond yields and have not priced in any impact from rising bond yields in the US or UK.
- We use disclosed *embedded value* sensitivities to yields to estimate the sensitivity of life insurance subsidiaries to lower yields.
- For non-life business units we look at the proportion of assets invested in fixed income and the contribution to earnings from investment profits. We allow for the *present value* of lower investment profits given that it may take 3-5 years for assets to be fully reinvested into lower yields.
- We take into account the proportion of life or non-life business that is exposed to Euro businesses.

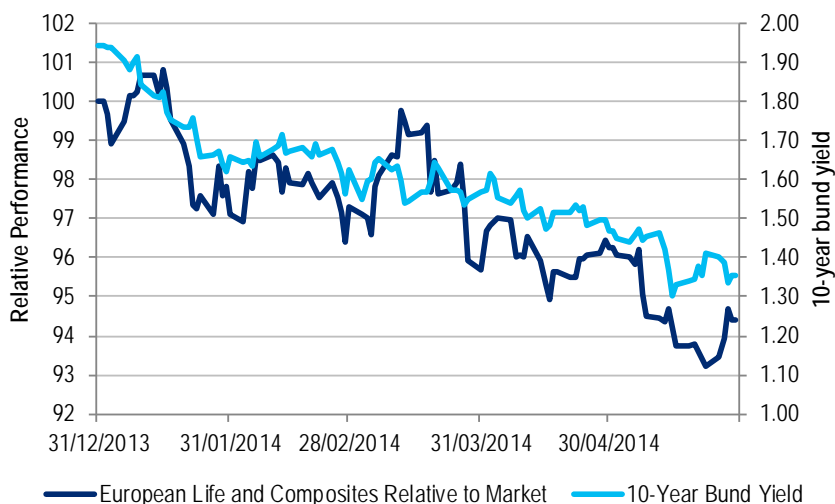
Figure 3. Citi estimate of *valuation* impact of a 30bps reduction in bond yields on selected European life insurers



Source: Citi Research estimates

## Life Insurers and low yields

Figure 4. Performance of European life and composite insurers versus Bund yield YTD



Source: Factset, Citi Research

**We believe the market's concern is understandable**

Life insurers, or 'composite' insurers with significant life insurance businesses, clearly derive a large proportion of their profits from investment income. The majority of modern life products are essentially savings rather than 'protection' policies, and a large subset of these are traditional savings vehicles containing guarantees (e.g. traditional life 'participating' savings contracts or deferred annuities with guarantees). Therefore, it is understandable that investors should be concerned about the fundamentals of European life insurance businesses in a climate of low yields.

**The performance of life shares has been correlated with yields YTD**

The prospect of QE adds to these perceived pressures. This has been reflected in the poor performance of the life and composite insurers over the year to date (Figure 4), which is correlated with falling yields over the same period. This follows a period of fairly strong outperformance from these names over 2012 and 2013.

**The market is applying a blanket approach**

However, we believe the market may be taking too simplistic a view of the impact of low yields, by not discriminating between the different types of liabilities at different insurers, as well as a number of 'mitigating' factors that we believe limit downside risks from low bond yields. As we illustrate in Figure 5, which shows AXA's life insurance investment margin (a measure of the spread or profit-sharing margin in traditional life savings products) compared to the Bund yield since the mid-2000s, it is not necessarily obvious that low bond yields have affected spread profits for *all* life insurers.

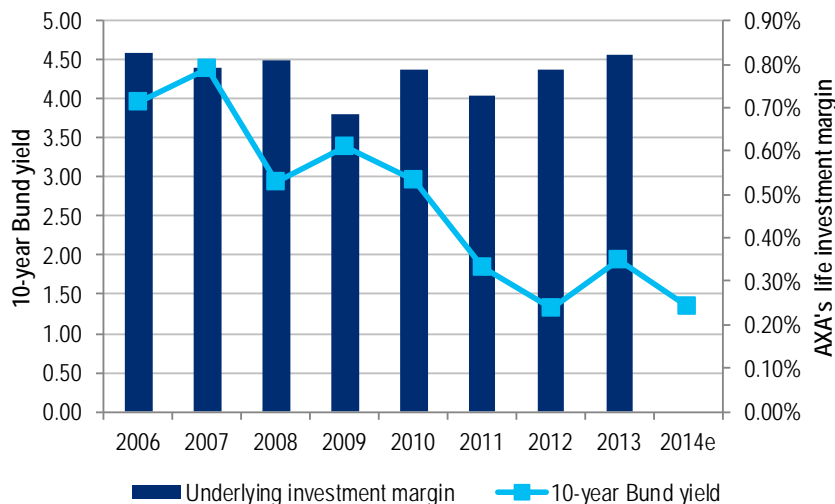
We would highlight the following drivers:

### 1. ALM mitigates risks from low yields

**Better ALM has reduced interest rate sensitivity**

Falling bond yields are not a new phenomenon and is something that European insurers have been adapting to for a quite a while. This has been accelerated by the shift to 'economic' capital models and Solvency 2 that require insurers to hold higher levels of risk-based capital against unhedged or unmatched investment guarantees. Therefore, European life insurers have been very proactive at minimizing interest rate risks in their policy books through numerous ALM techniques:

Figure 5. AXA's life investment margin versus Bund yield



Source: Company data, Citi Research

Duration mis-matches have been shortened, partly due to regulatory pressure

■ **Duration matching.** The long-term nature of fixed income assets used to match liabilities means that, in practical terms, movements in bond yields do not immediately affect cash flow, as assets are reinvested very slowly over time (and insurers have the ability to hold assets to maturity). However, European insurers also tend to minimize the 'duration gap' between assets and liabilities, since this is a major driver of economic and Solvency 2 capital requirements. This has been achieved through extending asset duration (e.g. through purchasing longer-term bonds), or through the use of interest-rate swaps and similar instruments. Typical duration gaps reported by European life insurers in recent years have been quite low at ~1-2 years (i.e. liabilities at a slightly longer-term duration than assets). This means that the reinvestment risk from assets maturing before liabilities is relatively contained. In 'present value' terms, lower yields result in the present value of liabilities rising more than bond prices, but only slightly due to the controlled duration gap.

Guarantees on new business have been lowered

■ **Reducing guarantees on new business.** Although guarantees provided in traditional 'participating' savings contracts tend to be a significant driver of demand (and are often used as a headline marketing tool), European life insurers have been reducing guarantees on new business to cope with the low yield environment. This is particularly evident in France, where most products contain either no guarantee, or an implicit 0% guarantee (return of premium benefit). However, guarantees have also been reduced in Germany (to 1.75% or below, from historic 'in-force' levels of ~3%) and in Italy (to less than 1%).

## 2. Product flexibility to cope with low yields

We provide an overview of traditional life policies across Europe

The 'participating' (or profit-sharing) structure of traditional life savings products (e.g. endowments and deferred annuities) often gives insurers flexibility to reduce payouts or take other measures to minimize guarantee risks in a low yield environment. In Figure 6 we show a brief description of some of the major forms of participating life contract in different countries, and how these products 'share' profits between policyholders and shareholders on investment income, technical (underwriting) income and expense margins (i.e. fees to cover expenses less actual expenses incurred).



Figure 6. Examples of 'participating' traditional life products in different countries in Europe

Country	Guarantee Structure	Market Trends	Investment Margin' Profit Sharing		'Technical Margin' Profit Sharing		'Expense Margin' Profit Sharing	
			Policyholders	Shareholders	Policyholders	Shareholders	Policyholders	Shareholders
Germany	Very complex profit-sharing structure, with most in-force policies requiring guarantees to be met annually. There are different rules and ratios for sharing investment profits, technical margins and expense margins between shareholders and policyholders. We estimate current in-force guarantees of ~3% on existing business, but ~1.75% in new business (for 'Classic' products). Germany has a well established system of policyholder buffers and reserves (RfB) that can be used to smooth returns and support payouts during periods of low yields.	Very slow shift to unit-linked products in Germany, but increasing amount of 'hybrid' products with very low guarantees (e.g. return of premium), and greater potential discretionary bonuses.	At least 90% of investment profit as defined by German GAAP (income + realised gains), subject to guarantee	10% or remainder to shareholders	At least 75% of technical margins (e.g. mortality profits) go to policyholders	25% or remainder to shareholders	At least 50% of expense margins (e.g. fees minus expenses) go to policyholders	50% or remainder to shareholders
France	Fairly flexible profit-sharing rules and guarantees that are limited by regulator to maximum of 60% of Treasury yields over an average period - therefore there is always a positive investment margin. Guarantees have been reduced significantly in the market to close to 0% in the in-force book, with insurers taking more asset risk to support discretionary bonuses. Guarantees do not have to be met annually - only on the maturity of the contract. However, there are limited surrender penalties, therefore there is a lapse risk in the contract. Policyholder capital (i.e. excess assets over those required to pay guarantees) can be used to offset low returns.	France has a very large unit-linked market. Often unit-linked products are sold with traditional participating life in tandem as hybrid products.	85% of investment profit (income plus realised gains), subject to guarantee. Competitive forces may drive this higher.	15% or lower to shareholders	85% of technical margin (e.g. mortality profit).	15% or lower to shareholders	85% of expense profit (fees minus expenses).	15% or lower to shareholders
Italy	Profit-sharing rules and guarantees vary by product type. A large proportion of legacy contracts (~50%) have guarantees that have to be met annually. However, the market is moving towards more flexible 'at maturity' guarantees and hybrid products. Also guarantees have fallen significantly, currently around 2% for traditional legacy products, but close to 1% for recent new business. Policyholder capital (i.e. excess assets over those required to pay guarantees) can be used to offset low returns.	Like Germany, unit-linked is popular but remains a smaller part of life liabilities than traditional products. However, guarantee structures in new business are becoming more 'Solvency 2' friendly with at-maturity guarantees and hybrid product designs.	80% of investment profit (income plus realised gains), subject to guarantee.	Most policies now contain a minimum 100bps margin for shareholders (subject to guarantee), otherwise 20% of investment profit	0% - policyholders only participate in investment margin	100% of technical margin (e.g. mortality profits) goes to shareholders	0% - policyholders only participate in investment margin	100% of expense profit (fees minus expenses) goes to shareholders
Switzerland (Group Life)	Formal profit sharing for mandatory group life business introduced in 2003. Other products (e.g. non-mandatory group products or individual life) have informal profit sharing. Guarantee is set retrospectively by regulator. Current guarantee of 1.75% (guarantees on non-mandatory products not regulated, but currently around 1.25%). Policyholder capital (i.e. excess assets over those required to pay guarantees) can be used to offset low returns.	Group life contract is mandatory. Development of low capital intensive non-mandatory solutions for group life including autonomous funds where customers take investment risk.	At least 90% of investment profits (income plus realised gains) in group life contracts. Informal profit-sharing in other products.	10% or lower to shareholders.	At least 90% of technical margin in group life contracts. Informal profit-sharing in other products.	10% or lower to shareholders.	At least 90% of expense profit in group life contracts. Informal profit-sharing in other products.	10% or lower to shareholders.
UK	With-profit products and profit-sharing concept is largely a legacy issue. Guarantees vary by policy, but are very close to 0% in 'with-profit bonds'. Little new business is written in participating contracts in the UK. Profit-sharing mechanisms are highly flexible, with guarantees paid at maturity only, and scope for surrender penalties on early surrender.	Participating contracts are no longer a mainstream part of the UK life insurance landscape, where savings have moved to unit-linked vehicles.	At least 90% of investment profits paid to policyholders - calculated on a mark-to-market basis	10% or lower to shareholders.	At least 90% of technical profits paid to policyholders	10% or lower to shareholders.	At least 90% of expense profits paid to policyholders	10% or lower to shareholders.

Source: Citi Research



**Insurers can reduce payouts to policyholders**

The key points to highlight are:

- There is often significant flexibility in products to reduce payouts to policyholders when yields are low. Often insurers will pay greater proportions of profits generated to policyholders than they are mandated to do so by regulations for competitive reasons (e.g. paying out >85% of investment profits in France). Therefore there is scope to reduce payouts. In addition, where contracts have guarantees set 'at maturity' (i.e. where guarantees do not have to be paid annually – which is the case in France, Switzerland and in new business in Italy), there is also significant flexibility to reduce payouts during periods of weak investment returns with the option to build these up again at a later date.

**Insurers can use policyholder capital to subsidise investment returns**

- Insurers can use policyholder capital to subsidise investment returns. This is capital built up over years from excess asset returns (or unrealized gains) that has not been distributed to policyholders or shareholders, and where there is some discretion over its allocation. For example, this capital is referred to as 'free RfB' in Germany, or 'inherited estate' (or 'orphan estate') in the UK.

### 3. Business mix shifting away from traditional life savings

**Insurers have been shifting away from traditional policies**

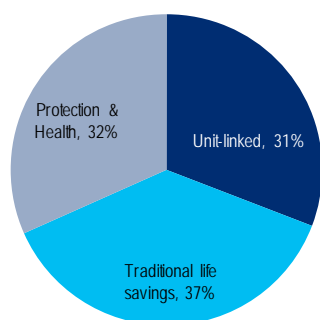
We believe the market often overestimates European life insurers' exposure to traditional life insurance guarantees. Over the past ten years, insurers have been shifting away from these products due to the low yield environment, as well as the higher capital requirements (and lower implied returns on capital) for traditional guarantees under a Solvency 2 regime.

**Exposure to investment margins is now much lower**

We illustrate this in Figures 7 and 8. Only about a third of AXA's life insurance liabilities are in traditional 'general account' life savings products. If we look at sources of operating income, for most European life insurers, investment margins are now a minority source of revenue, with fees and charges on premium inflows the greatest source.

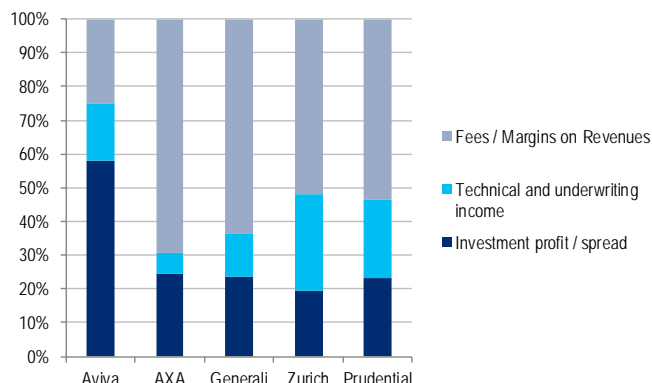
These trends reflect European insurers' efforts to diversify their business mix away from capital intensive life products to more profitable (under Solvency 2) unit-linked and protection & health business. The transition will take time given the long-term nature of life savings products, however we expect this to intensify over the next 5-10 years as legacy guarantee policies start to run-off.

Figure 7. AXA's life insurance in-force liability mix - 2013



Source: Company data, Citi Research

Figure 8. Sources of life operating income for selected insurers - 2013



Source: Company data, Citi Research

These trends are more developed in some markets than others. Broadly, we observe:

- In the UK life market, traditional 'participating' savings products are now an insignificant part of new business, following changes to regulation and distribution in the 2000s. Companies still sell annuities and protection business, but these contain low investment margin risks given close asset-liability matching.
- The French and Nordic markets are also highly geared to unit-linked products, which are a major part of new business sales – although in France, traditional participating products are very flexible, with relatively low investment risks, and are still popular with consumers.
- In the German, Swiss and Italian markets, traditional participating or hybrid contracts containing investment guarantees are still very popular, with unit-linked still a smaller part of the life insurance landscape. However, companies have adapted new business design to make guarantees more hedgable or better-matched (e.g. by reducing guarantees, moving to 'at maturity' rather than 'annual' guarantees, allowing guarantees to be re-priced etc.).

In addition, we must not forget that European insurers have significant exposure to US and UK life markets where, as we already set out earlier in this note, we expect rising yields in the medium-term. This obviously includes the UK-based insurers, but we would also highlight Aegon, Prudential and AXA with the greatest exposure to US life insurance subsidiaries.

# Non-Life Re/Insurers and Low Yields

The headline impact for non-life re/insurers is lower future investment returns, as maturing bonds are reinvested at lower yields. However, the adverse impact on earnings takes time to come through. More importantly, this is offset by a number of mitigating factors, which we believe are receiving much less attention from the market:

## 1. Low yields are positive for underwriting discipline

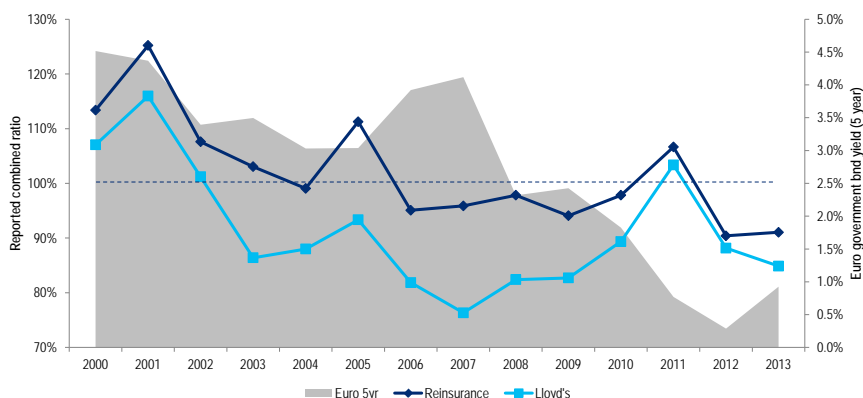
Low yields drive greater underwriting discipline across the market

There is a clear inverse correlation between the level of bond yields and underwriting discipline exhibited in non-life re/insurance markets – i.e. underwriting profits tend to be much better when yields are low and/or declining. This stands to reason, given there are relatively limited levers that management teams can use to maximize their ROE's. Consequently, non-life players tend to be much more disciplined on pricing when they find it hard to generate attractive returns on their insurance 'float'.

Greater u/w profits improve the quality of earnings

In the chart below we show the improvement in combined ratios reported by the European reinsurers and Lloyd's players over the last 13 years. During this period there has been a consistent decline in yields, which was accelerated by the financial crisis. Non-life re/insurers have responded very positively to lower yields by increasing the level of returns they generate from underwriting profitability. This has the added benefit of improving the quality of returns they generate, in our view.

Figure 9. Reinsurers/Lloyd's underwriting returns have improved since yields have fallen



Based on reported combined ratios for Hannover Re, Munich Re, Scor, Swiss Re, Amlin, Catlin, and Hiscox.  
Source: Company data; Datastream; Citi Research

Reviewing similar data for the European composite players shows a less structural improvement in underwriting returns. However, it is also clear that underlying margins for the likes of Axa and Zurich have seen consistent improvement in over several years (ie excluding catastrophes and reserve releases).

## 2. Low inflation is positive for reserve releases

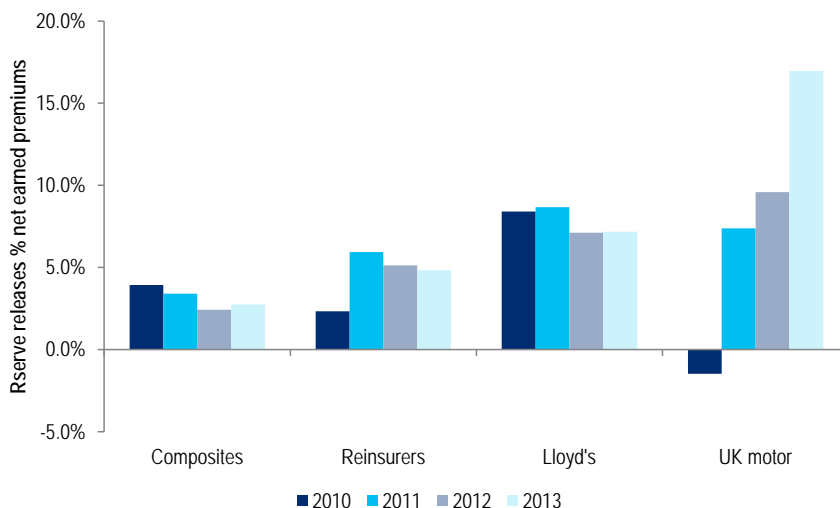
Low claims inflation drives higher reserve releases

The risk of deflation is frequently quoted as a key reason for lowering interest rates in Europe. However, it also has a significant positive impact on non-life re/insurers through reserve releases. Throughout the financial crises most non-life re/insurers have benefited from significantly lower than expected inflation in claims costs compared with reserving estimates in recent years. Consequently, given that reserving practices haven't changed, we believe reserve releases could be more sustained than the market currently expects. Clearly reserving is cyclical over longer

periods of time, but we think the low inflationary environment in most markets should be positive for future releases.

In the chart below we show the contribution to underwriting profits from reserve releases for composites, reinsurers, Lloyd's names, and UK motor insurers.

Figure 10. Reserve releases have been driven by lower than expected claims inflation



Based on Axa, Generali, Zurich, Hannover, Munich, Scor, Swiss, Amlin, Catlin, Hiscox, Admiral, Direct Line, Esure.  
Source: Company data; Citi Research

Reserve releases could hold up better than many expect

- **Consistent releases:** Reserve releases have been consistently positive across all sub-segments for the last few years. Note that the 2010 UK motor is skewed by personal injury claims strengthening at Direct Line.
- **Low volatility releases:** The contribution has been relatively stable for composites, reinsurers and Lloyd's names. Reinsurers increased in 2011 due to Swiss Re and UK motor has seen increasing releases as market conditions have been increasingly challenging.

### 3. Asset re-risking could offset yield pressure

It is important to point out that most non-life re/insurers have already taken measures to deal with a sustained period of low interest rates. We believe recent yield developments can be dealt with by simply further extending these actions.

There is potential for further asset re-risking

- **Further increasing investment risk:** Most companies have increased their allocation to riskier assets in order to improve yields. This has included higher allocation to i) corporate credit, ii) structured credit, and iii) equities. Nevertheless, riskier assets remain modest in the context of investment portfolios which we show in the chart below. Combined with very strong capital positions across the sector, we believe this leaves scope for further re-risking to offset yield pressures. This could in turn lead to higher realized gains on government bond portfolios (unrealized gain levels remain high), although we believe the market looks beyond these.
- **Yield changes take time to affect earnings.** It is important to note that any yield changes will take time to affect earnings, since non-life re/insurers generally hold

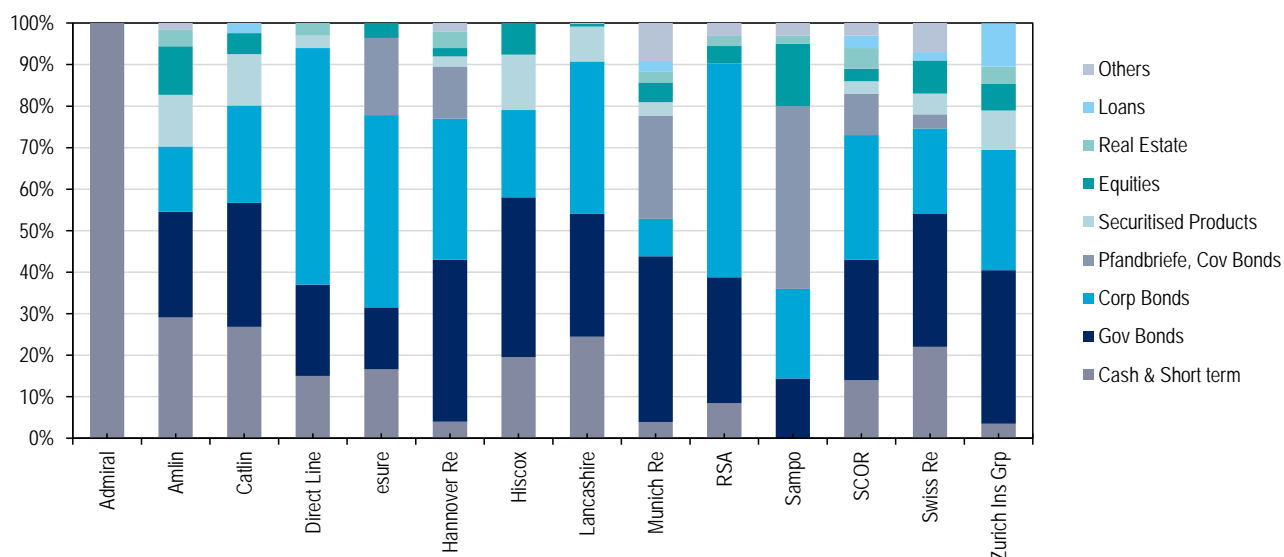
their bonds to maturity. Running yields of fixed income portfolios remain 100-150bps above reinvestment rates, which will help sustain earnings.

**Better ALM matching reduces exposure to low interest rates**

■ **Better ALM matching:** many players have lengthened the duration of their fixed income portfolios. This has helped to improve yields and reduced the duration gap between assets and liabilities. This has helped insulate companies from a prolonged period of low interest rates.

■ **Greater clarity on Solvency 2 removes regulatory obstacles:** we believe uncertainty surrounding the Solvency 2 capital charges associated with riskier assets has deterred many players from re-risking. We expect to receive greater clarity over these requirements, which will increase the flexibility that non-life re/insurers have to actively manage their investment portfolios.

Figure 11. Asset allocations remain conservative and could be re-risked to offset lower yields



Source: Company data; Citi Research

Figure 12. European Insurance valuation sheet

Citi European Insurance					EUR		P/E			P/BV			P/TBV			P/EV			ROE			ROTBV			Div. Yield		
	Rec	Curr.	Current Price	Target Price	ETR	Market Cap €m	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Composites																											
Ageas	Neutral	EUR	30.8	33.0	11.6%	7,181	12.4	11.2	9.4	0.80	0.79	0.75	0.96	0.95	0.90	0.82	0.81	0.77	6.2%	7.1%	8.2%	6.9%	8.6%	10.0%	4.6%	5.0%	5.2%
Aviva	Buy	GBp	526.0	590.0	15.0%	19,096	12.5	10.2	9.4	1.95	1.74	1.55	2.39	2.08	1.82	1.16	1.09	1.04	23.8%	16.7%	16.8%	18.6%	23.3%	22.3%	2.9%	3.1%	3.8%
AXA	Buy	EUR	18.0	24.0	37.4%	43,680	10.3	8.5	8.0	0.97	0.83	0.78	1.39	1.13	1.03	1.02	0.93	0.83	9.2%	10.6%	10.1%	13.4%	16.4%	14.1%	4.5%	4.9%	5.4%
Delta Lloyd	Buy	EUR	18.4	22.5	27.8%	3,535	20.4	7.9	6.7	1.35	1.22	1.09	1.51	1.34	1.19	0.84	0.79	0.74	6.8%	16.3%	17.1%	8.0%	19.2%	20.0%	5.6%	5.6%	5.9%
Generali	Sell	EUR	16.8	15.5	-4.4%	26,109	19.2	10.6	10.4	1.31	1.11	1.04	2.05	1.60	1.45	1.10	0.92	0.83	9.6%	11.3%	10.3%	10.7%	19.3%	15.4%	2.7%	3.3%	3.7%
Talanx	Buy	EUR	26.3	28.4	12.6%	6,645	8.7	8.8	8.7	0.92	0.87	0.82	1.09	1.01	0.95	NA	NA	NA	10.6%	10.1%	9.7%	11.0%	12.3%	11.7%	4.6%	4.8%	4.9%
PZU	Neutral	PLN	453.0	447.0	5.3%	9,442	12.4	13.7	14.4	2.97	2.91	3.03	2.97	2.91	3.03	1.51	1.48	1.46	23.9%	21.5%	20.6%	22.2%	21.7%	20.2%	11.0%	8.3%	8.5%
Zurich Ins Grp	Neutral	CHF	265.7	278.0	11.0%	32,458	10.4	9.6	9.6	1.32	1.24	1.19	1.40	1.31	1.25	1.42	1.28	1.17	12.0%	13.4%	12.6%	12.4%	14.6%	13.6%	6.4%	6.4%	6.4%
Composite Average							12.6	9.8	9.4	1.36	1.23	1.17	1.71	1.48	1.38	1.11	1.01	0.93	12.6%	12.8%	12.3%	13.4%	17.3%	15.5%	4.8%	4.9%	5.3%
Life																											
Aegon	Neutral	EUR	6.4	7.1	14.9%	13,618	21.9	9.0	8.1	0.67	0.71	0.66	0.68	0.72	0.67	NA	NA	NA	2.9%	7.7%	8.5%	2.7%	7.6%	8.9%	3.4%	3.8%	4.4%
Legal & General	Neutral	GBp	230.5	220.0	-0.6%	16,801	15.4	14.2	13.4	2.42	2.27	2.15	2.45	2.30	2.17	1.44	1.37	1.31	16.1%	16.6%	16.6%	16.3%	17.2%	17.2%	4.0%	4.5%	5.1%
Prudential	Buy	GBp	1,379.7	1,645.0	21.6%	43,575	15.3	15.4	13.7	3.71	3.16	2.76	4.37	3.63	3.11	1.53	1.35	1.19	13.4%	24.7%	21.4%	26.0%	28.4%	26.4%	2.4%	2.6%	3.1%
Friends Life	Neutral	GBp	313.4	316.0	7.7%	5,472	10.1	11.6	10.7	0.85	0.88	0.89	0.89	0.90	0.90	0.73	0.73	0.73	3.8%	2.7%	4.4%	8.7%	7.7%	8.4%	6.7%	6.7%	6.9%
Standard Life	Neutral	GBp	389.4	390.0	4.2%	11,466	15.4	15.9	14.5	2.17	2.06	1.94	2.34	2.21	2.08	1.13	1.09	1.07	10.9%	12.5%	13.2%	14.4%	14.7%	15.2%	4.1%	4.3%	4.6%
Life Average							16.0	14.0	12.7	2.65	2.35	2.12	3.00	2.60	2.31	1.19	1.08	0.99	11.5%	17.8%	16.5%	18.2%	20.2%	19.6%	3.3%	3.6%	4.0%
Non-life																											
Admiral Grp	Neutral	GBp	1,453.0	1,256.0	-7.1%	4,948	15.2	14.8	13.8	8.52	8.30	7.70	10.64	10.29	9.39	NA	NA	NA	56.5%	57.0%	58.3%	70.6%	71.7%	74.7%	6.5%	6.5%	6.6%
Direct Line	Neutral	GBp	256.1	244.0	0.7%	4,731	10.2	11.7	9.6	1.37	1.39	1.30	1.88	1.81	1.65	NA	NA	NA	11.1%	10.1%	14.6%	15.6%	14.3%	17.8%	8.0%	5.5%	6.2%
esure Group	Buy	GBp	266.0	294.0	17.0%	1,366	11.9	11.6	10.6	4.04	3.80	3.44	4.25	3.96	3.56	NA	NA	NA	36.9%	33.7%	34.1%	43.4%	36.7%	37.4%	5.9%	6.5%	7.1%
Mapfre	Sell	EUR	3.0	2.5	-12.2%	9,257	11.7	10.5	9.5	1.18	1.11	1.05	1.57	1.45	1.34	3.43	3.31	3.20	10.1%	10.9%	11.3%	14.0%	14.9%	15.2%	4.3%	4.7%	5.0%
RSA Ins	Neutral	GBp	481.8	501.0	8.7%	6,016	-11.1	10.1	13.0	1.44	1.26	1.22	2.40	1.69	1.62	NA	NA	NA	-11.1%	13.5%	9.6%	-16.5%	23.7%	13.0%	2.1%	2.6%	4.7%
Sampo	Neutral	EUR	37.2	35.7	0.3%	20,776	14.6	13.6	12.8	1.94	1.83	1.73	2.10	1.97	1.85	NA	NA	NA	13.7%	13.9%	14.0%	15.2%	15.4%	15.4%	4.2%	4.6%	4.9%
Non-life Average							10.3	12.4	11.9	2.43	2.31	2.16	2.97	2.75	2.54	0.67	0.65	0.63	14.7%	18.0%	18.2%	17.6%	22.8%	22.2%	4.6%	4.7%	5.2%
Lloyds																											
Amlin	Neutral	GBp	470.5	452.0	1.6%	2,902	8.0	11.1	11.0	1.40	1.33	1.28	1.63	1.55	1.48	NA	NA	NA	18.8%	12.3%	11.9%	22.8%	14.7%	14.1%	5.5%	5.7%	6.0%
Catlin Grp	Buy	GBp	519.5	605.0	22.4%	2,317	7.9	10.0	9.9	0.96	0.92	0.87	1.24	1.18	1.11	NA	NA	NA	13.5%	10.0%	9.6%	17.1%	12.4%	12.0%	6.1%	6.2%	6.5%
Hiscox	Neutral	GBp	678.5	679.0	8.5%	2,659	10.7	12.6	12.6	1.69	1.50	1.37	1.78	1.58	1.43	NA	NA	NA	17.1%	12.7%	12.2%	19.3%	14.1%	12.5%	8.4%	3.3%	3.5%
Lancashire	Buy	GBp	645.0	852.0	39.5%	1,475	8.5	9.0	9.1	1.56	1.50	1.45	1.56	1.50	1.45	NA	NA	NA	16.7%	16.2%	15.4%	17.5%	17.3%	16.4%	7.9%	8.8%	9.1%
Lloyds Average							8.8	10.9	10.9	1.40	1.30	1.23	1.57	1.46	1.37	0.00	0.00	0.00	16.7%	12.4%	12.0%	19.5%	14.4%	13.5%	6.9%	5.6%	5.9%
Reinsurer																											
Hannover Re	Neutral	EUR	65.0	64.5	4.0%	7,836	8.8	8.9	9.6	1.33	1.21	1.12	1.34	1.22	1.12	NA	NA	NA	15.0%	14.2%	12.0%	15.0%	15.1%	12.6%	4.6%	4.8%	4.9%
Munich Re	Neutral	EUR	160.6	162.0	5.5%	27,775	8.7	9.1	9.9	1.10	1.01	0.97	1.26	1.15	1.11	NA	NA	NA	12.5%	11.5%	10.1%	13.9%	13.8%	11.7%	4.5%	4.7%	4.8%
SCOR	Buy	EUR	25.3	29.2	20.6%	4,864	8.5	9.4	8.9	0.95	0.90	0.86	1.13	1.06	1.00	NA	NA	NA	11.3%	9.9%	9.9%	13.6%	12.0%	11.9%	5.1%	5.3%	5.5%
Swiss Re	Neutral	CHF	79.1	85.2	13.2%	23,982	7.3	11.0	11.0	0.92	0.95	0.97	1.05	1.09	1.11	NA	NA	NA	13.6%	9.4%	9.6%	13.6%	9.6%	9.9%	10.1%	10.7%	6.0%
Reinsurer Average							8.2	9.8	10.2	1.05	1.00	0.98	1.18	1.13	1.11	0.00	0.00	0.00	13.1%	10.9%	10.1%	13.9%	12.2%	11.2%	6.7%	7.0%	5.3%
Total average							12.25	11.24	10.76	1.77	1.62	1.51	2.10	1.87	1.72	0.84	0.77	0.72	12.8%	14.4%	13.7%	15.4%	17.8%	16.6%	4.8%	4.9%	5.0%

Source: Company Reports and Citi Research Estimates

## Appendix A-1

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