

# REDVIEWS

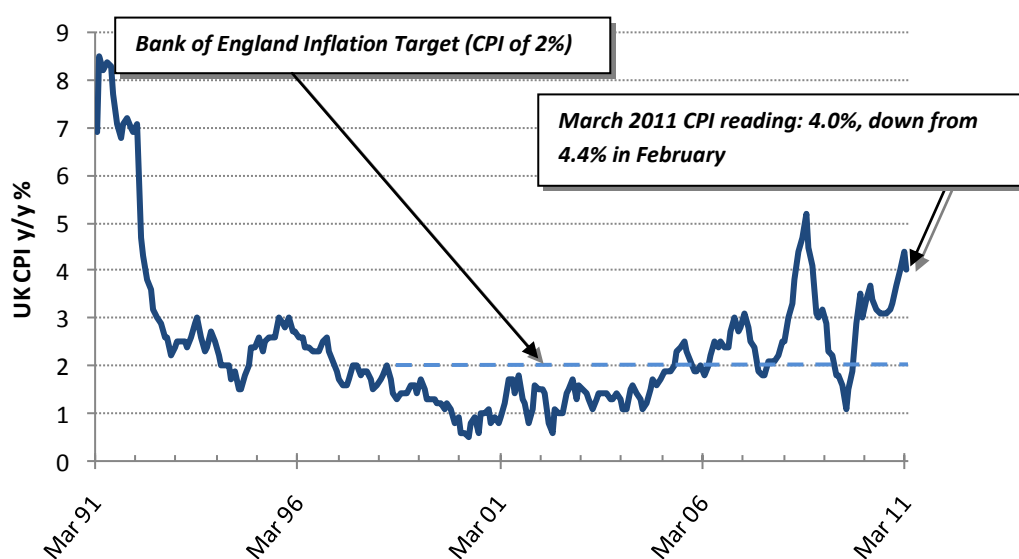
## Yield Curve (R)Evolution

By Gurjit Dehl – Redington financial guest writer

### Introduction

As central banks around the world embark on a perilous voyage to re-conquer inflation, carrying a supply of blunted monetary instruments and some strong rhetoric, will they be victorious?

#### Inflation: Target Vs Reality



Source: Bank of England, Redington

Even more importantly, **what happens to the shape of the yield curve if/when short-term interest rates move higher to tackle rising inflation?**

Inflation is a fixed income security's second worst nightmare – directly after default. If the world's leading central banks prove incapable of bringing inflation down to their desired targets, a **whole range of yield curve possibilities** arise.

In addition to highlighting these yield curve possibilities, it is **also important to understand the underlying reason for any shift in the shape of the yield curve.**

### Yield Curve Possibilities

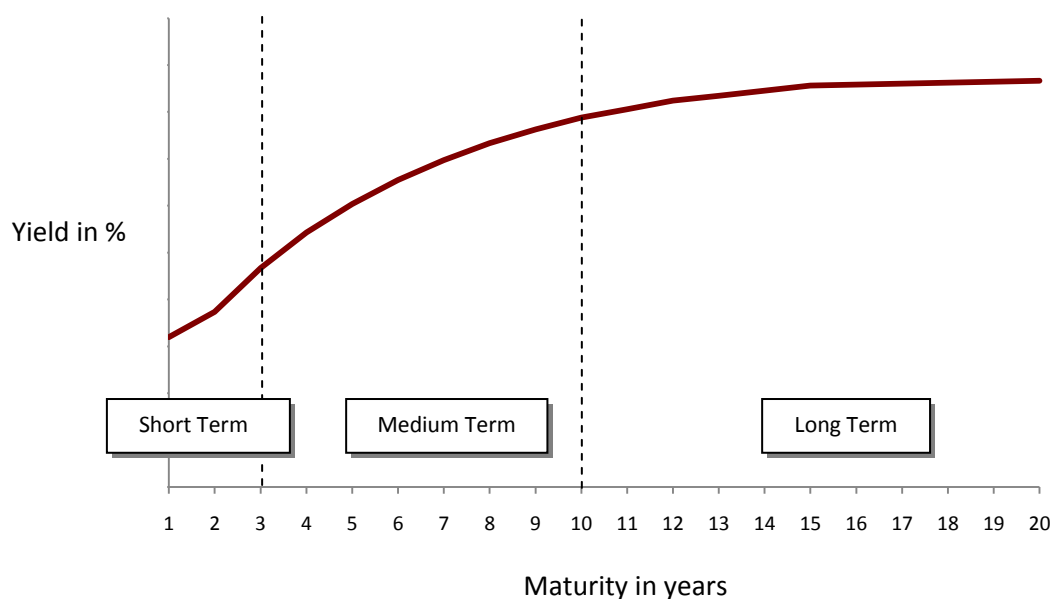
- A **steeper curve** is usually a sign of economic health and prosperous days ahead.  
**BUT** it can also signal upcoming woes.
- A **flatter curve** usually signals a deteriorating economy.  
**BUT** it could be a sign of better days on the horizon.
- An **inverted yield curve** usually precedes a period of economic stagnation.  
**BUT** it is hopefully succeeded by a steeper curve when light appears at the end of the tunnel.

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## 1. Normal Yield Curve – *What it should look like*

### Generic Yield Curve Example



### **Relationship between short-term and long-term interest rates**

**Long-term interest rates** are effectively the **market's best prediction of future short-term rates**, which are **influenced** by **monetary policy**:

- If the market believes central banks will commence a **tightening cycle (i.e. they raise rates)**, **longer rates should follow short-term interest rates higher** as cumulative rate rise affect spreads along the curve.
- If central banks are believed to embark on a period of **looser monetary policy (i.e. they lower rates)**, **long-term yields should fall in anticipation of lower short-term yields**.
- For this reason, an **upward sloping yield curve** (usually) signals a **positive economic outlook**, whilst a **downward sloping curve** (usually) indicates a **less rosy future**.
- Note that a **downward sloping yield curve** can **also** be the **result of a supply and demand misbalance for long-term fixed income assets**. When demand for those outstrips supply, their yield will be low compared to the short and medium term.

### **Central banks' focus on short-term rates to influence long-term rates**

The **traditional way to influence long-term rates** is thus to **move short-term rates**.

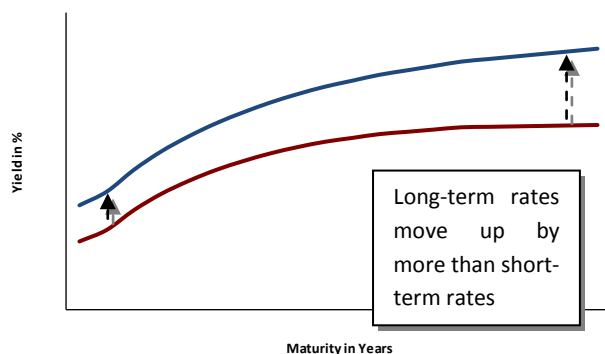
- By **signalling short-term interest rate moves** in advance, the market will **re-price longer rates**.
- When **short-term rates** reach **0%**, they **lose much of their power to influence the yield curve**.

**Non-traditional methods** focus on **purchasing longer-dated assets** to **cap long-term yields**.

- **'Quantitative easing'** (QE) allows **central banks** to **influence** the **price of longer-dated securities** (please see our RedViews on quantitative easing on our website).
- By **lowering long-term yields**, **cheaper loans** replace **rate cuts** to support the economy.

## The Future Yield Curve – *What it could look like*

### 2.1 Steeper

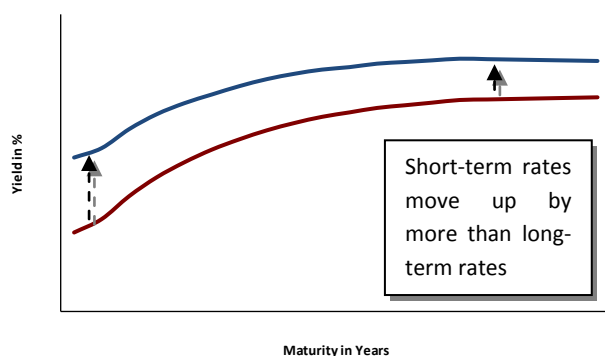


If economists, bankers and politicians could vote today, a steeper yield curve would be their choice, by unanimous decision.

It allows **banks** to generate **greater profits** and **indicates optimism** amongst borrowers, lenders and investors.

***BUT*** rising long-term yields also ***eat into corporate and sovereign earnings*** as more cash is needed to service debt, rather than being re-invested.

### 2.2 Flatter

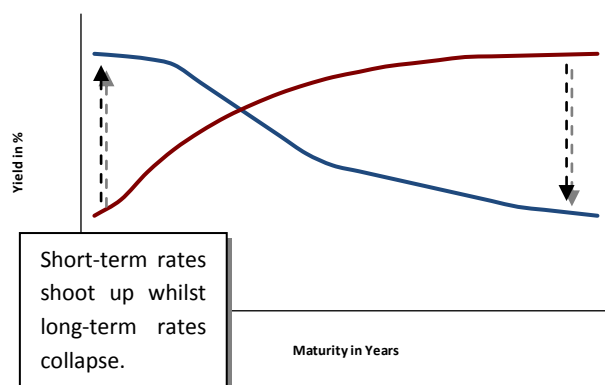


As the differential between short and long-term rates decreases, **banks** find it **tougher to make money** and **reduce their lending** accordingly.

It can help **new fixed-rate borrowers** by lowering loan rates, old variable-rate borrowers will be worse off.

***BUT*** an ***occasional curve flattening*** is ***healthy*** when ***short-terms yields are too low/long-term yields too high*** to promote economic growth in the medium-term.

### 2.3 Inversion



There is a good reason for an aversion to inversion. Upcoming economic woes are contained within this shape. Fortunately, it is a rare beast.

**Profitable investments are hard to find.** Banks **reign in their risk** as rising loan defaults and equity markets fall.

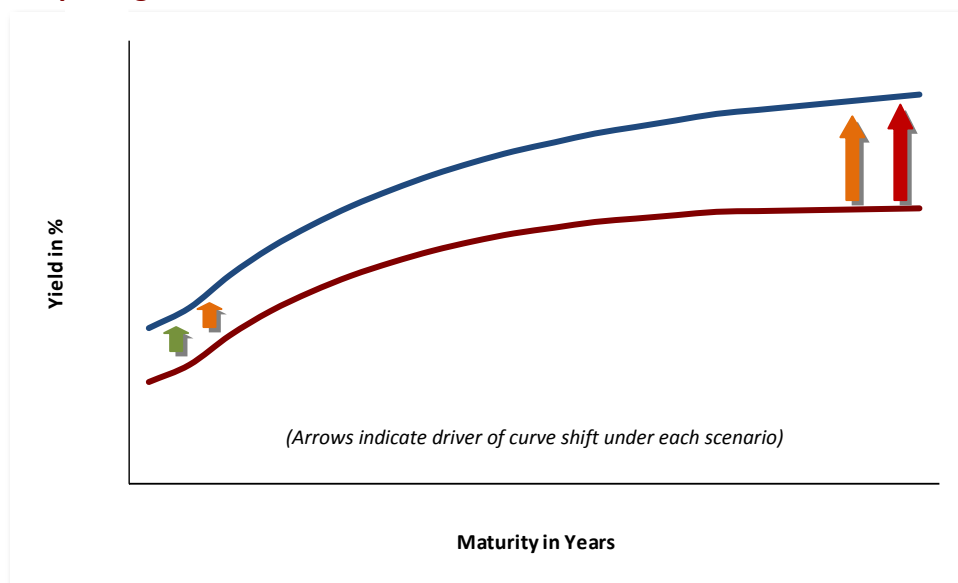
***BUT*** ***cash savers and prudent issuers*** will ***enjoy the boon of higher deposit rates/lower long-term borrowing costs.***

### 3 Future Scenarios – Adding ‘Why’ to ‘How’

From an **investment perspective**, it is **enough to predict** (correctly) **how** the yield curve will evolve over time.

From a **macroeconomic perspective**, it is also **vitaly important** to **understand why** the shift is taking place.

#### 3.1 Steepening



#### Curve Scenarios

##### The Good – Bullish

Rising short-term rates quell inflation fears, fuelling hopes of sustained high economic growth. Long-term rates then rise by more than short-term rates as improving economic conditions lead to positive growth and company earnings surprises.

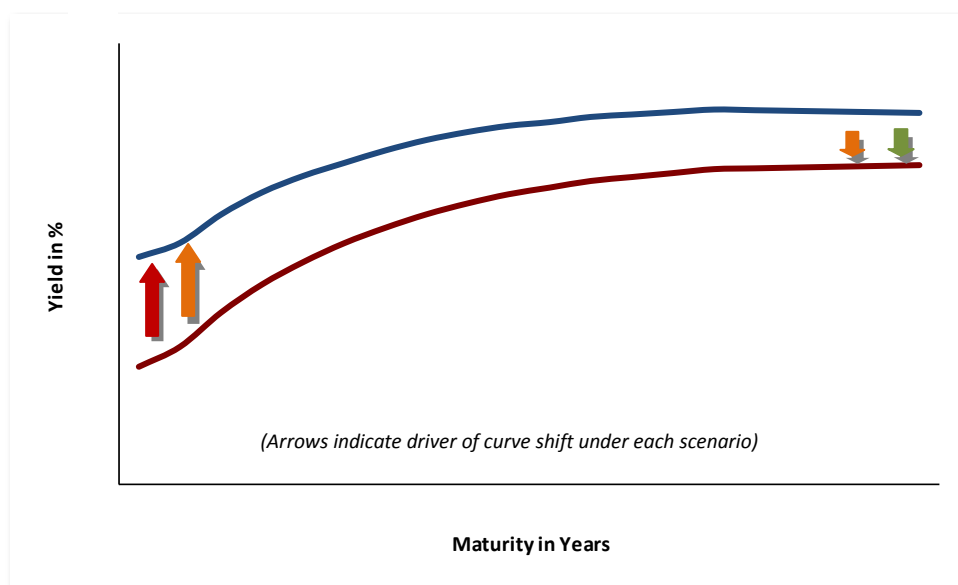
##### The Bad – Neutral

Despite higher short-term rates, the yield curve steepens as continued inflation worries cause bond buyers to demand higher returns. Economic growth is stunted by higher rates.

##### The Ugly – Bearish

Central banks' best efforts fail to bring inflation under control. Worried bondholders further reduce their exposure, forcing long-term rates higher. Central banks keep hiking and re-start asset purchases ("quantitative easing") to cap yields.

## 3.2 Flattening



### Curve Scenarios

#### The Good – Bullish

**Tamed inflation encourages bondholders** to buy more bonds, driving long-term yields lower. **Cheaper credit origination** allows central banks to **raise short-term rates without damaging growth**. Banks replace 'carry' profits\* with profits from rising bond prices.

#### The Bad – Neutral

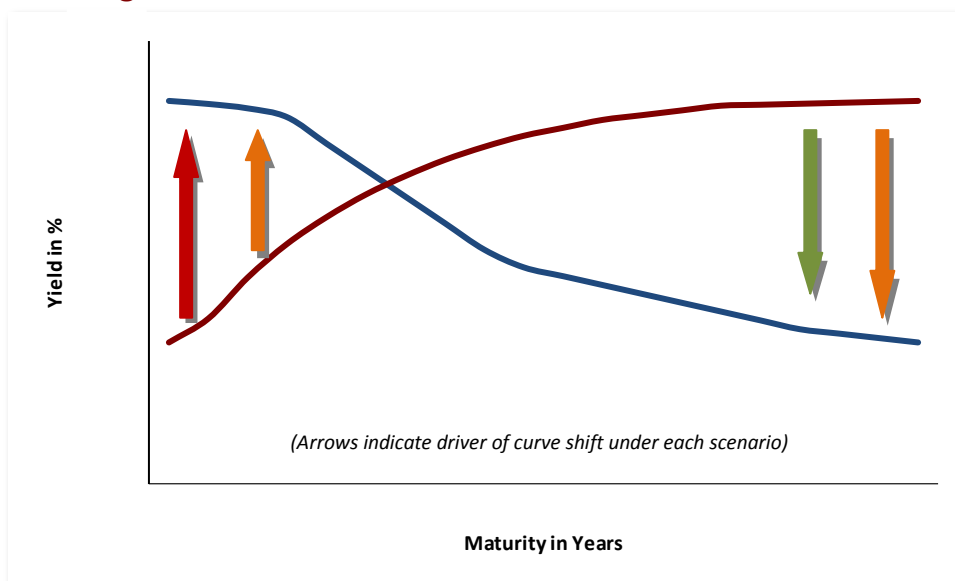
It takes time before higher short-term rates have an **impact on price increases**. Growth slows down as the increasing rates raise the cost of credit before lowering inflation. **Improving inflation prospects/worsening growth outcomes** send **long-term yields lower**, hurting banks' profits and reducing credit supply.

#### The Ugly – Bearish

**Rapid increases in inflation are met by even more rapid rate hikes**. As growth concerns overshadow quickly rising consumer inflation, **investors reduce interest rate risk by switching to shorter-dated securities** trading at heavier discounts. This further flattens the yield curve, increasing the chance of inversion.

\* borrowing short term and lending for the long-term term to benefit from the difference in rates

### 3.3 Inverting



#### Curve Scenarios

##### The Good – Bullish

Sharp declines in long-term rates are driven by rising defaults, creating fresh economic worries. Short-term inflation outcomes increase while medium-to-long-term inflation prospects diminish. Enough bad loans are written off/restructured so that the inversion proves short lived.

##### The Bad – Neutral

Higher short-term rates do their job and stifle inflation but drag growth down too. Markets quickly re-price from tighter to looser monetary policy as central banks communicate their policy U-turn from loose to tight monetary policy in advance. The inversion is harmful but swift monetary action averts a crisis.

##### The Ugly – Bearish

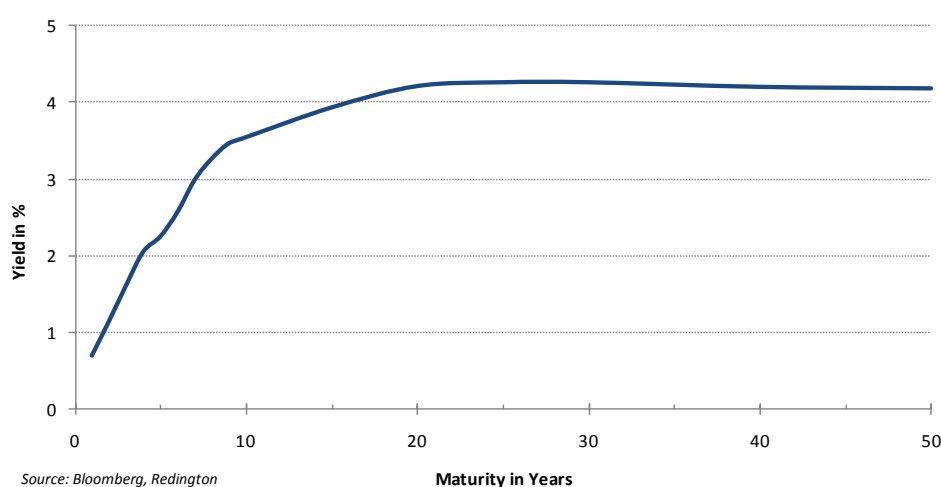
Central banks hike faster than expected due to exogenous inflation shocks. Weak borrowers are unable to finance their debt but also do everything in their power to avoid a default. Central banks dust off their printing presses and re-start asset purchase programmes to promote growth and save too-big-to-fail players, this time targeting bond yields instead of notional amounts.

#### 4 Current Reality – What yield curves look like today (April 2011)

All this economic postulating is fine in theory, but **what do yield curves look like in reality?**

Below we look at the **sovereign benchmark curves** for different economies. These curves look at the yield on government bonds. It is of course possible to construct yield curves based on other instruments such as swaps, but **government bonds** are often regarded as providing **important benchmark rates**.

##### UK Yield Curve



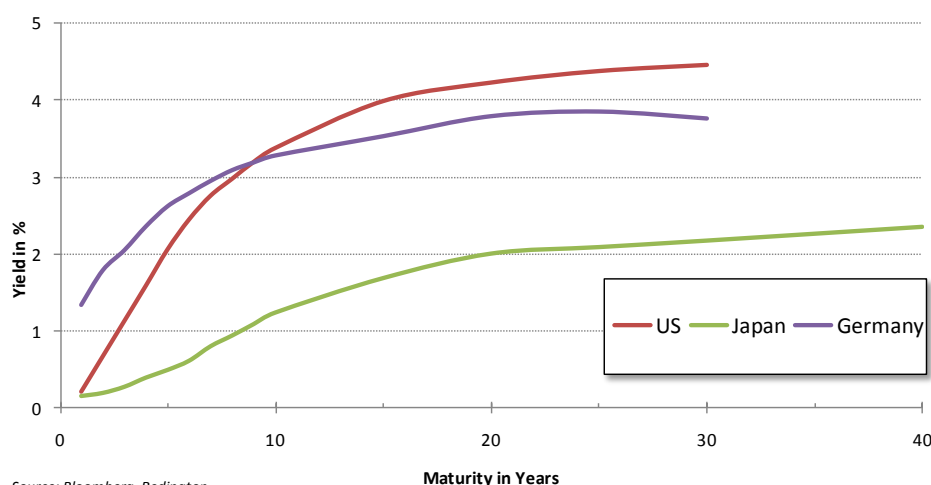
UK



**Steep and healthy** – at least **for the moment**. Rate hikes may steepen or flatten the curve, depending on the resulting outlook for growth and maturity profile of new gilts issuance.

A prolonged period of very low base rates of 0.5% will probably cause steepening, unless inflation continues its recent downward move.

## Major Developed Economies Yield Curves



### US



**Steep, and confused.** The Fed will be the last major central bank to hike rates which leaves further steepening on the cards, despite recent strength in Treasuries before Standard & Poor's put the US on a negative outlook. This will also add further downward pressure on the value of the dollar and upward pressure on commodities priced in dollar.

### Germany



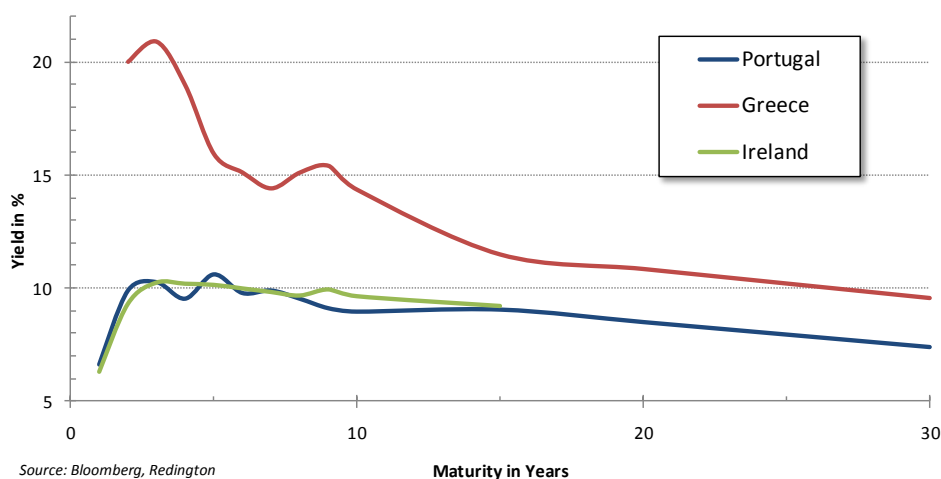
**Flatter but very healthy.** With the ECB commencing a rate hike cycle, expect some steepening as German exports continue to benefit from an overly weak (in German, not peripheral Euromember, terms) Euro. Alternatively, Euro investors may flock to the safety of German government debt should more Eurozone members face solvency issues, causing a flattening.

### Japan



With **short-term rates at extremely low levels** and a high and growing government debt-to-GDP ratio, **any positive slope is to be welcomed** from an **investor's perspective**.

## The Eurozone Bailouts Yield Curves



### Greece



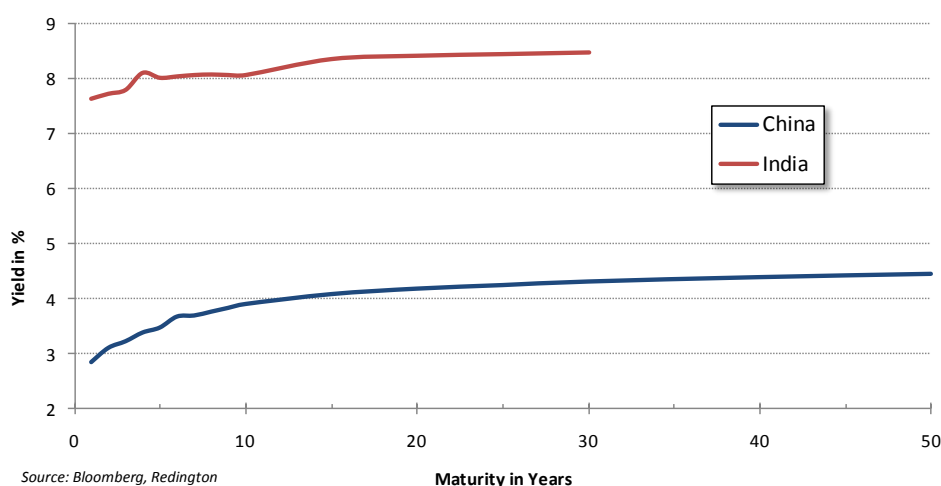
**Inverted and not looking to change.** With short-term government debt yielding more than 20% (against a 1.5% ECB refinance rate), it is likely this modern Greek tragedy will not be ending soon.

### Portugal/ Ireland



**Inverted but less so than the Greek curve.** Once the markets believe their austerity plans are credible and working, expect these curves to steepen and turn positive.

## China and India Yield Curves



### China



**Very flat, in-and-out of inversion recently.** The Party has again raised capital requirements (to 21%) and is working hard to slowdown the Chinese economy. Lack of long-term issuance is helping to keep long-term rates low, further stimulating growth. Beware any prolonged inversion of this curve.

### India



**Steep but likely to flatten.** India's economy is running red-hot and a 9% inflation rate is feeding into wage demands. The Reserve Bank of India meets on May 3 and further tightening is expected. This will, eventually, lead to curve inversion.



## Our Guest writer



### Gurjit Dehl

- Formerly Vice President at Deutsche Bank, London
- Senior Trader, Money Markets and FX Forwards Desk
- Extensive experience of analyzing and trading short-term interest rate products (cash, interest rate swaps, futures, options and OTC derivatives) on the back of central bank monetary policy
- Currently re-inventing himself as a Creative Economist, widening the scope of economic analysis and increasing its insightfulness and relevance

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