

# Schroders

## Economic and Strategy Viewpoint

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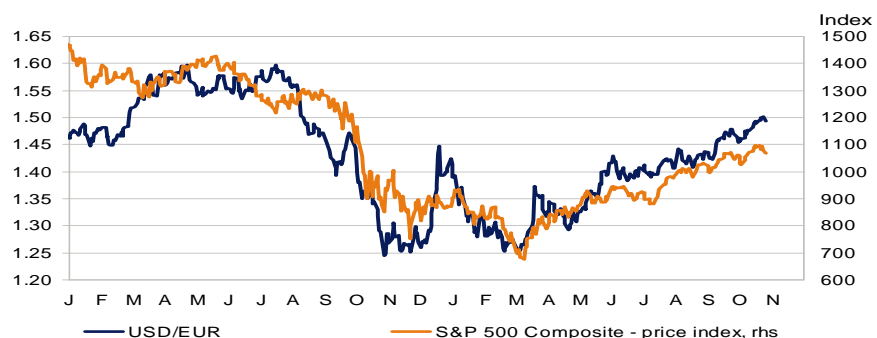
### Global: The dollar, re-balancing and the world economy (page 2)

- The US dollar has closely tracked swings in risk appetite with the rate against the euro moving in lock step with the S&P 500 over the past two years (see chart). Amongst the major currencies, strength and weakness is closely related to the severity of the credit crisis in each economy, with sterling being one of the worst hit.
- Meanwhile, there has been little official comment from the US on the latest fall in the dollar. An implicit acknowledgement no doubt that a more competitive currency is needed to narrow the trade deficit and rebalance the economy. This is certainly true, however, the bulk of the deficit is with countries whose currencies have not moved significantly, many of which can be found in the emerging markets.
- This is one reason to expect an appreciation of the emerging currencies, however, with many tied to the dollar such a move is a political decision and hence will be gradual. Consequently, the burden of adjustment will continue to fall on the majors, particularly the euro and yen - both of which are already expensive.

### Focus – Inventory cycles 101 (page 9)

- De-stocking by firms in response to large falls in demand creates a drag on GDP. However, as demand begins to recover, firms replenish depleted inventories, with the additional output resulting in a temporary bounce in GDP.
- While the theory provides a neat story, our empirical analysis finds that Eurozone economies tend to see a less noticeable boost from inventory cycles, which is spread thinly over several quarters. Non-Eurozone (G7) economies tend to follow prevailing wisdom, receiving a pronounced bounce in the first two quarters, with the effects fading thereafter.
- Our assessment suggests greater upside risk to our US, and to a lesser extent, UK growth forecasts. However, the results also support our view that a “W” shape recovery profile is likely. In terms of strategy, commodity prices are likely to be well supported ahead of the re-stocking phase of the cycle. The consumer discretionary sector is likely to underperform until unemployment begins to fall, which is unlikely until re-stocking is well under way. Finally, corporate earnings should continue to improve during the current de-stocking phase, but then disappoint once we enter the final stage of the cycle.

Chart 1: In lock step - S&P 500 and the dollar (2008 - 2009)



Source: Thomson Datastream, 27 October 2009



# Global

**The dollar has suffered as risk appetite has returned**

## The dollar, re-balancing and the world economy

The recent fall in the US dollar has been met with a deafening silence from policy makers who almost seem indifferent to the currency's plight. The US unit has just broken through 1.50 against the euro and against the yen is at 91, having recently touched 88.

Underlying the recent fall in the dollar has been the revival in markets. Moves in the USD closely track swings in risk aversion with investors buying dollars during periods of falling risk appetite and selling them as markets recover. For example, having bottomed out at \$1.25 against the euro, the dollar has tracked the recovery in the S&P500 to its current level of \$1.50 (see chart on front page).

Clearly investors see the USD as a safe haven currency to hold in times of stress, and sell when volatility falls back. This may largely reflect the fact that the large US Treasury market is a natural recipient of funds during periods of market turmoil as investors move into government bonds. Similarly, within equity markets, the US is seen as the stable blue chip market and attracts funds when investors become more defensive.

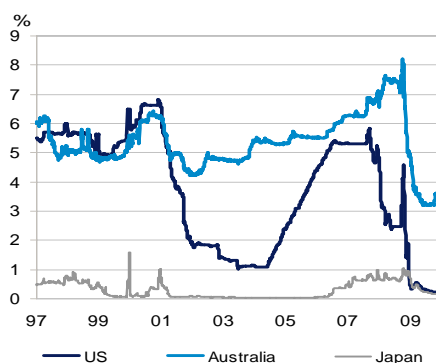
## The new carry trade

The link with risk appetite has been increased in the current environment by the fact that, with interest rates close to zero, the dollar has become a funding currency for the carry trade. For example, investors can pick up 3% by borrowing in US dollars and converting into Australian dollars. Such trades require a period of relatively low volatility if the carry is not to be wiped out by currency movements. The role of funding currency has previously been played by Japan where interest rates have been close to zero for more than 10 years, but today there is little difference between funding in yen or US dollars (see chart 2).

**Reflecting its new status as a funding currency**

**Chart 2: The US dollar is the new funding currency**

1-month interbank rates



1-month carry



Source: Thomson Datastream, 27 October 2009

Arguably, the US dollar is more attractive than the yen as a funding currency as its fundamentals are weaker. Whereas Japan is a low inflation economy with a current account surplus, the US has a history of higher inflation and runs a current account deficit.

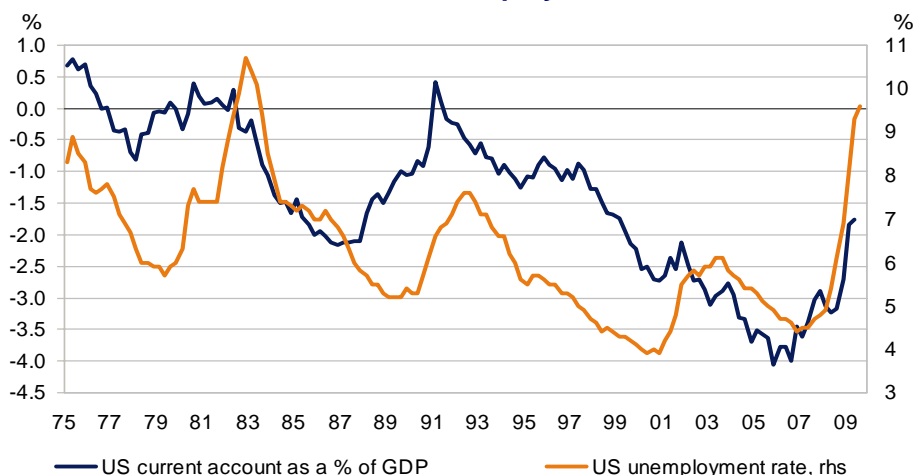
**Benign neglect**

**The US needs a competitive currency**

**Reduction in trade deficit is cyclical**

It is the persistence of the latter which helps explain the lack of official reaction to the recent fall in the dollar: a more competitive currency is needed to stimulate trade growth and help reduce the trade deficit. Some claim that the adjustment has already taken place as the deficit has narrowed sharply. However, this is against a backdrop of a weak economy with unemployment heading towards 10% and arguably the deficit should have disappeared completely (see chart 3). Economic recovery is likely to bring a renewed deterioration in the deficit as unemployment falls, consumer spending strengthens and imports rise.

**Chart 3: US current account and unemployment**



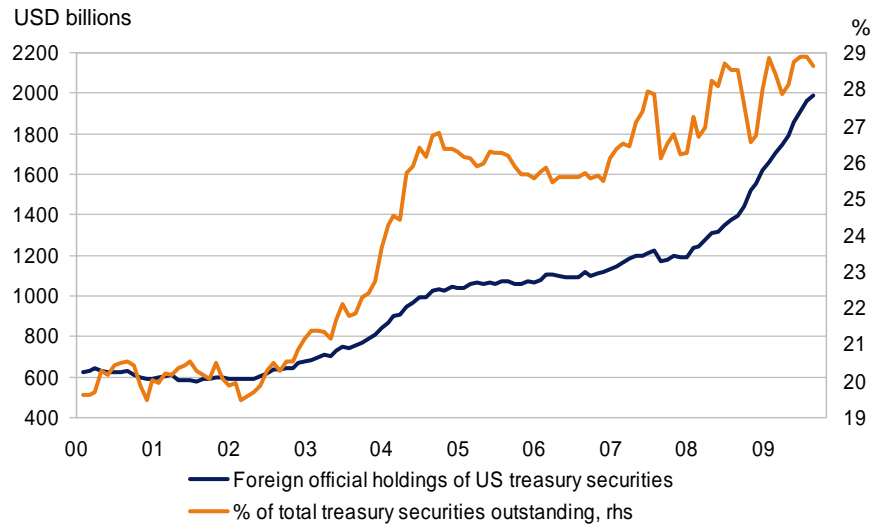
Source: Thomson Datastream, 27 October 2009

Another reason for official equanimity is that, so far, the fall in the dollar has been orderly with equity and bond markets remaining firm. This suggests that there has not been a loss of confidence in the US economy or administration such as to cause investors to flee the currency. Such an outturn would risk a potential downward spiral as weaker markets further undermine activity and the currency.

**Foreign central banks continue to fund the US government**

Furthermore, although the US Treasury may have privately welcomed the measured nature of the dollar's decline, they recognise that to actively encourage it would risk the ire of their overseas creditors. Despite the narrowing of the trade imbalance and talk of diversifying away from the dollar, the oil producers, China and other Asian economies continue to accumulate dollar reserves at a rapid rate. Foreign official holdings of Treasuries at the Federal Reserve are rapidly approaching \$2 trillion and account for nearly 30% of the total government bond market (see chart 4 on the next page).

**Chart 4: Foreign official holding of US Treasury securities**

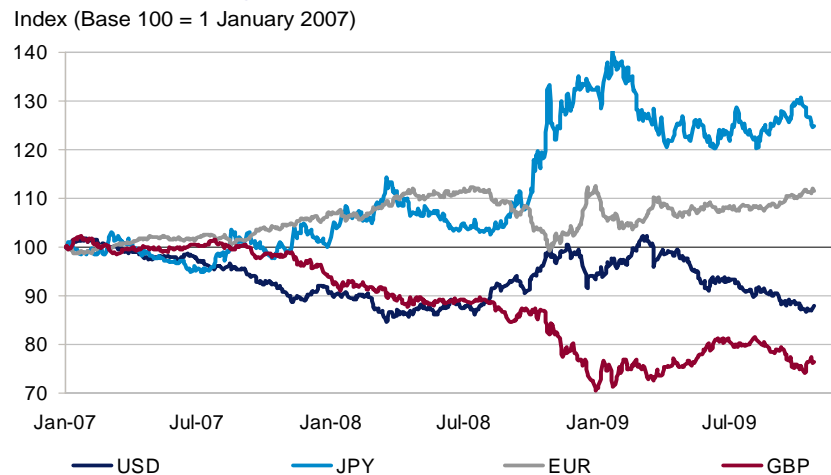


Source: Thomson Datastream, 27 October 2009

**Impact on the rest of the world**

The fall in the dollar will create stress, particularly in economies like Japan and the Eurozone which are bearing the burden of adjustment. Over the past three years, in trade weighted terms the yen and euro have gained 25% and 12% respectively, while the dollar is down more than 10% and the pound around 25% (see chart 5).

**Chart 5: Trade-weighted indices of the developed economies**



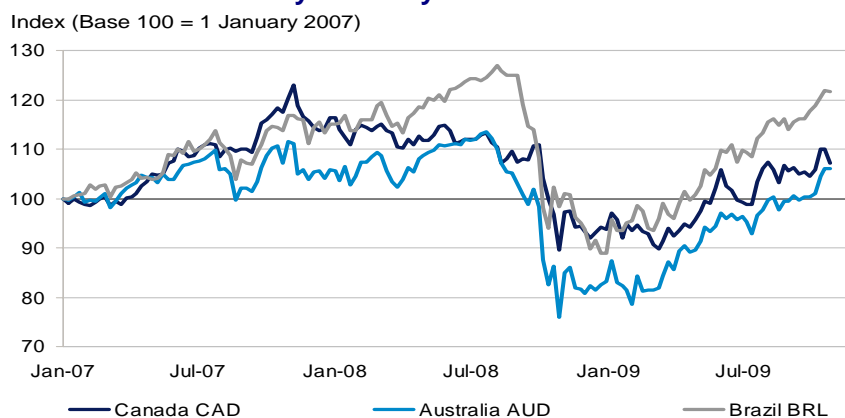
Source: Thomson Datastream, 27 October 2009

**Currency performance linked to proximity to credit crisis**

Such a performance could be seen as a logical consequence of the credit crunch with the most affected economies experiencing the greatest depreciation. During the boom years, capital was drawn into the US and UK to fuel rising demand for credit. As this unwound and foreign banks pulled back, the dollar and sterling have weakened. Subsequently, both the US and UK have been engaged in quantitative easing and the Bank of England have been quite open about welcoming a fall in the pound.

However, the most dramatic currency moves can be found outside the majors, with the commodity currencies experiencing a roller coaster ride over the past three years (see chart 6). Along with commodity prices, these moves also tie in with the swings in risk appetite. Having slumped at the end of 2008, we have seen strong rallies in the Australian and Canadian dollar as well as the Brazilian real. With the latter now more than 20% above its pre-credit crisis level, the Brazilian authorities recently introduced a transactions tax to try and stem the capital inflow into the country.

### Chart 6: The commodity currency roller coaster



Source: Thomson Datastream, 27 October 2009

**Most currencies are now expensive against the dollar...**

Trade weighted measures are indices, hence a better idea of absolute value is provided by measures such as purchasing power parity (PPP). Using estimates from the OECD and The Economist, it is clear that the only major currencies which might be considered "fair" value against the dollar are sterling (GBP) and possibly the Canadian dollar (see table 1). All others are some 20 - 30% away from PPP and so are considered expensive. This bears out how recent currency movements will have an effect on economic activity going forward. The one exception is the Chinese Yuan (RMB), which is tied to the US dollar and remains cheap.

**Table 1: Long run currency valuation**

	Current 26/10/2009	PPP/ USD	% diff.	Valuation v.USD
EUR	1.49	1.17	-27.1%	expensive
JPY	92.10	116.52	21.0%	expensive
GBP	1.63	1.53	-6.8%	fair
CHF	1.02	1.62	37.0%	expensive
AUD	1.09	1.50	27.3%	expensive
CAN	1.07	1.18	9.9%	fair
BRL	1.72	2.27	-32.3%	expensive
RMB	6.83	3.53	48.3%	cheap

All quoted as number of units per 1 USD except EUR and GBP

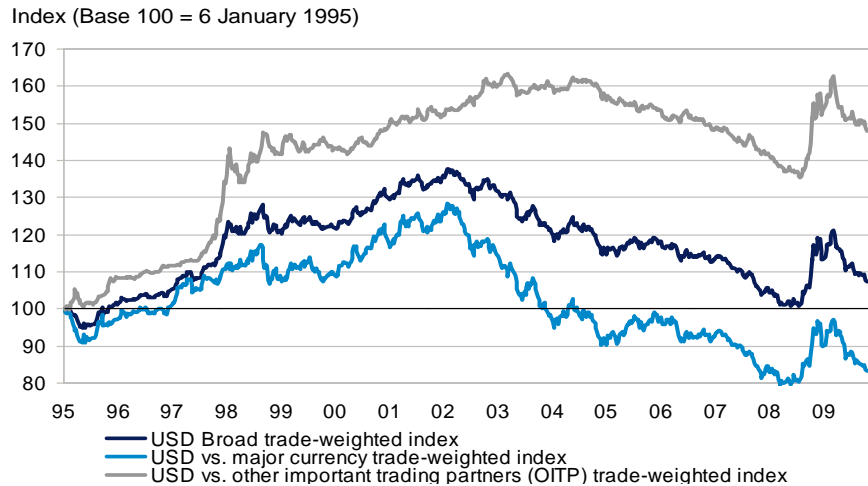
Note. PPP for BRL and RMB based on The Economist Big-Mac index.

Source: OECD, Thomson Datastream, The Economist

**...with some notable exceptions**

The relative cheapness of the Chinese RMB highlights one of the key challenges to re-balancing the world economy. By pegging its currency to the US dollar, China has locked in a competitive advantage so underpinning its trade surplus. This puts the competitiveness of the US in a different light – using the broad trade weighted index constructed by the New York Federal Reserve, shows that whilst the dollar has depreciated against the major currencies, it has made little progress against other important trading partners - a group which, along with China, includes Brazil, Russia and India, much of South East Asia and oil producers such as Saudi Arabia. Against these countries, the trade weighted dollar remains at an elevated level (chart 7).

**Chart 7: USD trade-weighted indices**



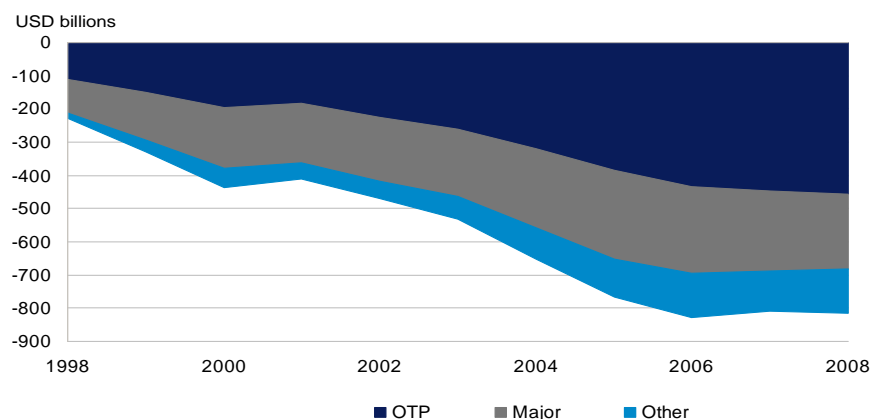
Source: Thomson Datastream, 27 October 2009

Other important trading partners include China, Hong Kong, Taiwan, Brazil, India, Mexico, Russia, Malaysia, Singapore, Korea and Saudi Arabia.

**Most of the US trade deficit is with the emerging economies,**

This is largely a consequence of the emerging markets crisis of 1997/98 when a number of currencies fell sharply. Subsequently, they re-established their links to the dollar and stabilised. However, the competitiveness gain remains. In terms of the US trade deficit the importance of this group is highlighted by the fact that they account for more than half the total deficit (chart 8).

**Chart 8: Breakdown of the US trade deficit**



Source: Thomson Datastream, Schroders

Note: Other trading partners (OTP)

**...many of whom have linked their currency to the dollar**

Thus, in terms of the rebalancing debate, the fall in the dollar against the major economies is missing the main part of the story. The real devaluation needs to take place against the other trading partners' currencies. The issue here is that many of these are officially linked to the dollar either through a peg or a trade-weighted basket and so requires a political decision to change.

International pressure looks set to increase and our view is that policy makers in Asia will gradually allow their currencies to appreciate. However, in the meantime the major currencies are likely to bear the brunt of the adjustment. For example, it is quite possible that we see another 10% move in the euro and yen against the dollar. Although this would make those currencies very expensive versus fundamentals such as PPP, we are in an environment where over shooting is a distinct possibility.

**Strategy implications**

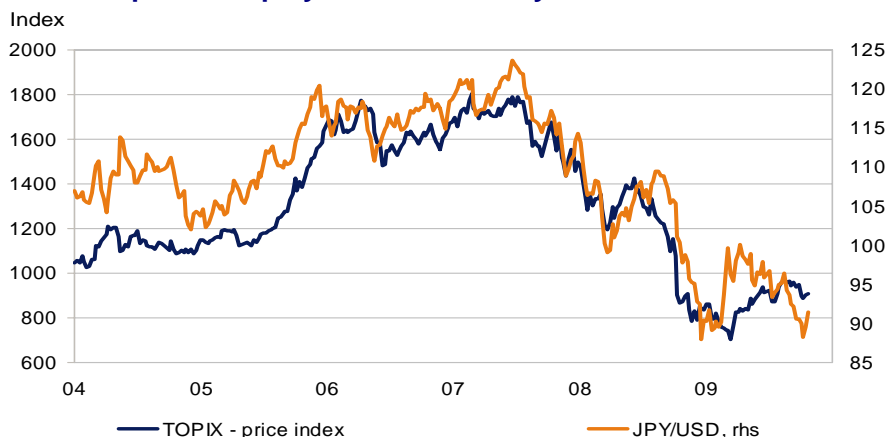
**Emerging country currencies to appreciate, but slowly so**

There is a clear case for holding emerging market (or "other trading partners") currencies on this analysis. If global rebalancing is to remain an aim of policy makers - and Fed chair Ben Bernanke reiterated this earlier in the month<sup>1</sup> - the trade and competitiveness arguments point in one direction. It will take time and will need to be accompanied by measures to raise saving in the US and increase consumption in Asia, but we can also expect a gradual revaluation of Asian currencies, led by the Chinese Yuan.

**Pressure on euro and yen to remain**

In the meantime, the pressure is likely to remain on the major currencies, particularly the euro and the Japanese yen, not good news for activity in their respective economies. The stronger exchange rate will mean that companies will face the unpalatable choice of cutting costs or allowing margins to be squeezed in order to retain competitiveness. Both have relatively weak consumer sectors and depend on exports for growth. This is reflected in their equity markets which have a high proportion of industrial exporters and the link between the yen and the Topix is very close (see chart 9). The decision to cut taxes and boost consumption in Germany could be seen as particularly timely in this respect.

**Chart 9: Japanese equity market and the yen**



Source: Thomson Datastream, 28 October 2009

<sup>1</sup> See "Asia and the global financial crisis", Ben S. Bernanke October 19<sup>th</sup> 2009

By contrast, firms in the US and UK with overseas earnings will continue to benefit from the competitiveness gain and the translation effect of a weak currency. This would tend to skew performance toward the multi-national industrials and away from domestic consumer areas of the market.

#### **Forecast update – next month**

We will be formally reviewing our forecasts next month as part of our quarterly process. Following the third quarter US GDP figures, it looks as though we will be upgrading our growth numbers. The bounce from the inventory cycle could well prove stronger than previously expected (see below for a more detailed analysis). However, we still believe in a W shaped recovery profile with the prospect of a fade in activity later in 2010. Despite a likely upgrade to activity, we may push our forecast for the first rate rise out into the second half of next year, in line with recent comments from policy makers who remain cautious over the exit strategy.

# Focus

## *Inventory cycles have a powerful effect on GDP and corporate profits*

### Inventory cycles 101

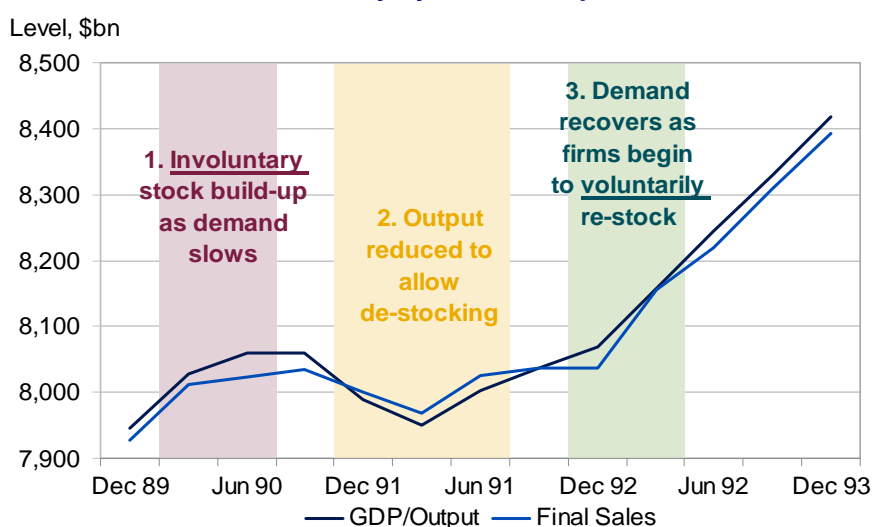
Economists often refer to inventory or stock cycles when examining cyclical upturns and downturns in economic activity. The inventory cycle can have a powerful effect on both GDP and corporate profits, particularly during a serious recession like the crisis from which the world is currently emerging. Therefore, it is important to consider how inventory cycles evolve, the typical impact they have, and whether the perceived effect from the cycle can be applied uniformly to all economies.

### Here's the theory

Changes in inventories directly impact GDP in the same way as the level of consumption or investment does. However, the change in the level of inventories is a direct result of a divergence between aggregate output for an economy, and final sales over that period of time. Final sales – which include both private and public consumption and investment – often fluctuate from quarter to quarter. Due to these fluctuations, firms tend to hold a small amount of excess stock in order to satisfy demand should there be a sudden spike. Of course, holding inventories is costly, both in terms of storage, opportunity cost, and the depreciation of those inventories. This is why businesses have invested a tremendous amount of resources in “just-in-time” production and distribution processes, which allow producers and retailers to react to fluctuations in demand more efficiently, minimising the size of inventories.

To help explain the process of a typical cycle, Chart 10 shows the 1990/91 US recession as a stylised inventory cycle. Cycles tend to begin with a period of significant and persistent falls in demand and final sales, for example, in the build-up to and a period of recession (phase 1 in Chart 10). At first, firms do not recognise that demand has been hit significantly, and so they continue to produce goods at previous levels. This causes an involuntary build-up in inventory levels as production outpaces demand.

**Chart 10: Phases of inventory cycle – US experience 1989-93**



Source: Datastream, US 1989-93

As firms begin to recognise that the drop off in demand is more than a short-term fluctuation, companies begin to slow production by more than the fall in demand. This allows them to reduce the amount of inventories that had built up (phase 2). Of course, firms can discount products to clear stock more quickly, which they often do; however, a reduction in production levels is usually required during major falls in demand. This was seen recently in the UK where car producers halted production for a number of months in order to stop a large build up in inventories.

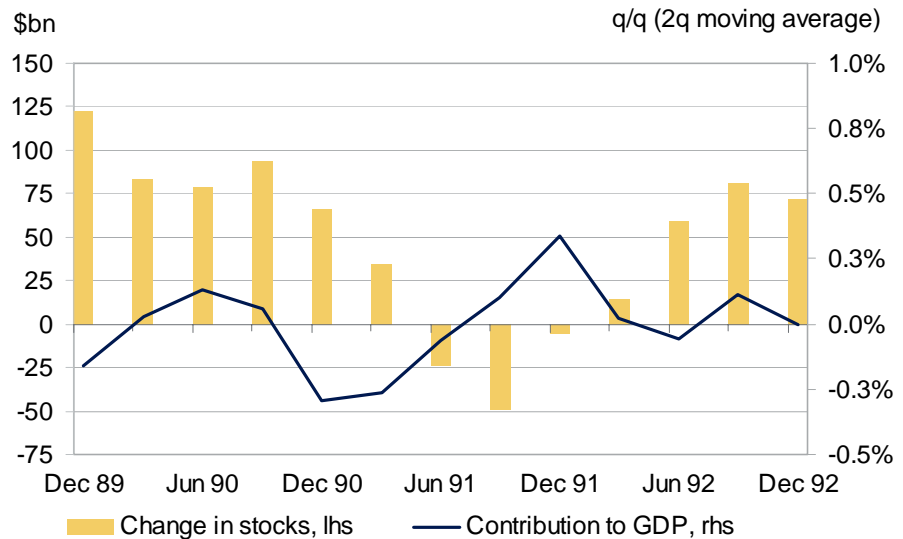
Once demand in an economy stabilises and begins to grow again, firms begin to regain confidence and start to expand production in order to keep up with rising demand. At this stage in the cycle, inventory levels will be very low, and firms tend to begin to voluntarily re-build inventory levels (phase 3). This is essentially over production, but is required if demand is to be satisfied at all times during the post-recession environment.

**What does it mean for GDP?**

***Forced de-stocking drags down GDP growth, but re-stocking leads to a bounce in output***

Essentially, the stock cycle is a symptom of firms significantly over-shooting and under-shooting demand levels with their levels of production. However, the impact on GDP is not as straightforward as it seems. The change in stocks feeds into the GDP level calculation, and so to look at the impact on GDP growth, we need to consider the growth in the change in stocks.

**Chart 11: Change in stocks & contribution to GDP**



Source: Datastream, US 1989-93

As chart 11 shows, GDP growth does now receive a positive contribution from inventories until there is a slowdown in the rate of de-stocking. Once voluntary re-stocking begins to accelerate, the contribution to GDP from inventories becomes less prominent as other areas of the economy take over as key drivers of growth. What about the impact on the rest of the economy? What does this mean for markets?

**Unemployment tends to rise until re-stocking is well underway...**

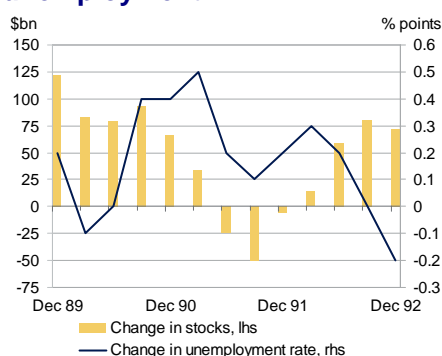
**What happens to unemployment and corporate earnings?**

The change in inventory levels tends to be a good indicator for the amount of spare capacity in an economy, and therefore a leading indicator for unemployment. However, the rate of change in inventories, and so the contribution to GDP, tends to be a better indicator for corporate earnings.

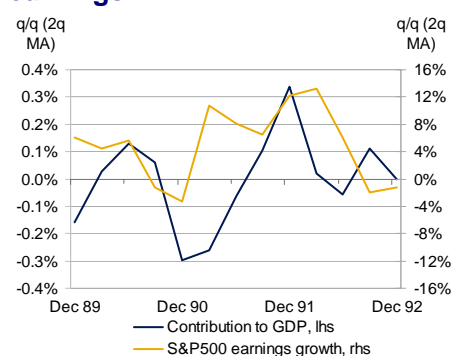
As can be seen from chart 12, as stock levels build involuntarily, firms begin to reduce output and their capacity to produce, causing the change in the unemployment rate to turn positive (unemployment rising). As destocking gathers pace, unemployment continues to rise, but at a slower pace.

Finally, when the economy begins to recover and firms start to voluntarily restock, the change in the unemployment rate turns negative and firms begin to hire once again.

**Chart 12 Inventories vs. unemployment**



**Chart 13: Inventories vs. corporate earnings**



Source: Datastream, US 1989-93

**...but corporate earnings begin to slow by this point**

With regards to corporate earnings (chart 13), as destocking gathers pace and the contribution to GDP from inventories turns negative, corporate earnings receive an initial boost thanks to the reduction in costs. As de-stocking slows, so do the benefits from cost cutting for firms. However, as demand begins to recover and sales rise, earnings receive a second boost as the contribution to GDP peaks. Once a recovery is underway and firms begin to restock, earnings growth begins to fall back as stock building is not profitable in the short-term.

**G7 cycles in focus**

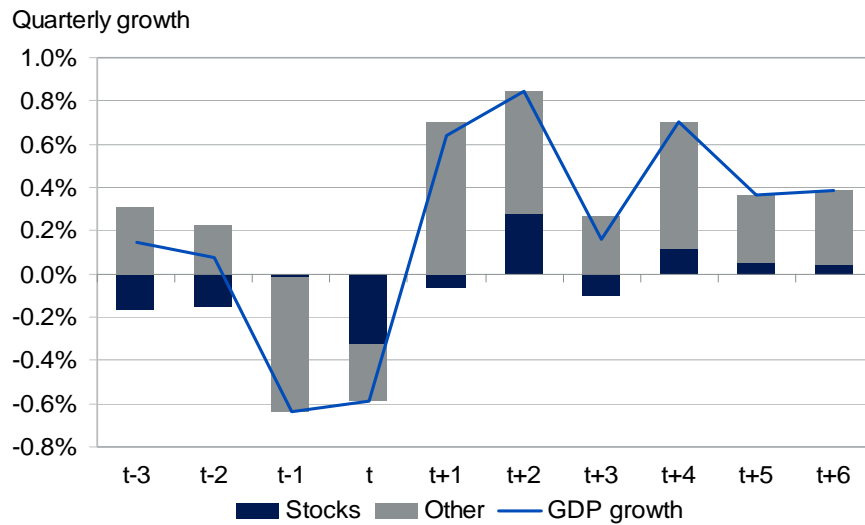
So far, we have looked at a single stylised cycle to explain the typical phases of an inventory cycle. This next section looks at 31 different cycles across the G7 since 1955 (where data is available – excludes current cycle) to consider how many quarters typical inventory bounces last for, and whether there are differences between countries.

Chart 14 shows the average contribution to GDP from the 31 inventory cycles identified, and the average path of GDP. We specifically choose cycles where there has been a technical recession and define point ‘t’ as the final quarter of negative GDP growth (and therefore t+1,2... are preceding quarters). Surprisingly, chart 14 shows that the boost from the inventory cycle is on average, not seen until two quarters after a recession, and it only tends to last for a single quarter – contrasting with prevailing wisdom. Note that as the boost from stocks reverses, there is a noticeable slowdown in total GDP growth. This is very similar to the “W” shape recovery profile we have in our baseline forecast.<sup>2</sup>

<sup>2</sup> Discussed in more detail in the August edition of the Economic and Strategy Viewpoint.

**Average cycle points to “W-shape” recovery...**

**Chart 14: Average inventory cycle contribution**

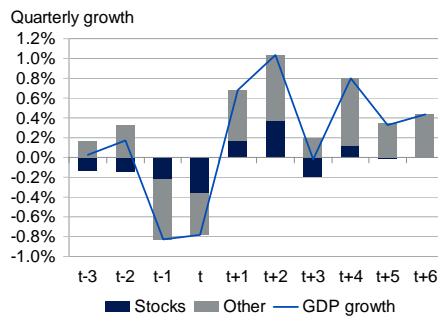


Source: Datastream, Schroders

Looking closer at the data, we find that there are significant differences in the evolution of GDP and inventory cycles between Eurozone economies and non-Eurozone economies. Charts 15 and 16 show the breakdown for each region separately. We learn that the US, UK, Canada and Japan tend to enjoy a much larger boost from the stock cycle in the first two quarters following the end of a recession. Eurozone economies on the other hand tend to continue destocking well into a recovery, with the eventual boost from the end of destocking coming much later, is smaller per quarter, and spread for a longer period of time.

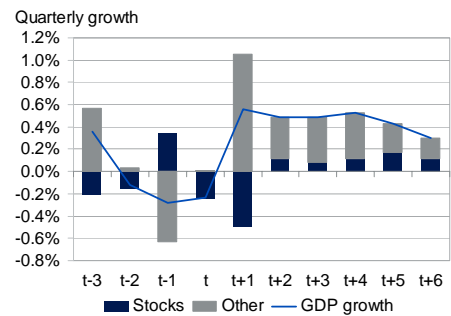
**...with a greater risk of slowdown in non-Eurozone economies...**

**Chart 15: Average non-EZ cycle**



Source: Datastream, Schroders

**Chart 16: Average Eurozone cycle**

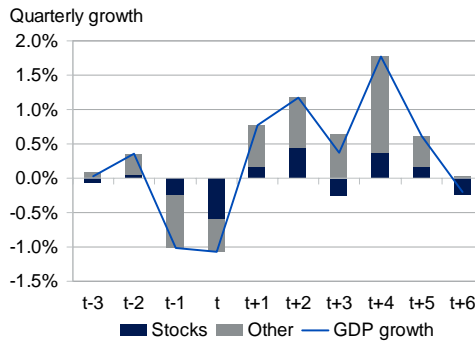


There are several structural differences between the regions that may cause these results. The first is the lack of flexibility in Eurozone economies relative to other G7 competitors (this has improved over recent years but holds over the last five decades). Flexible economies allow firms to cut staff and costs more aggressively, minimising the build-up of inventories. The faster reaction also leads to the need for greater re-stocking when a recovery begins, leading to a larger contribution from stocks.

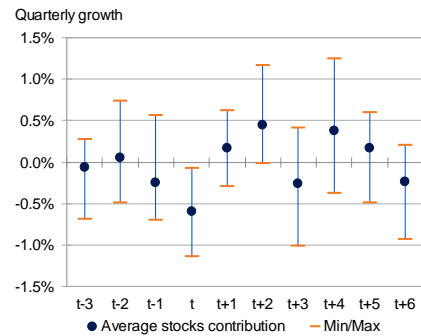
The second factor is the reliance on exports. Europe has tended to lag behind the US and UK during recoveries, and so tends to see export led recoveries rather than a bounce back in domestic demand.

Drilling down further at some of the key economies, the average US cycle is typical of what we have come to expect from the relationship between inventories and GDP (chart 17). Indeed, chart 18 shows that the minimum and maximum range around the average is consistent in shape and timing.

**Chart 17: Average US Cycle**



**Chart 18: Rang around US cycles**

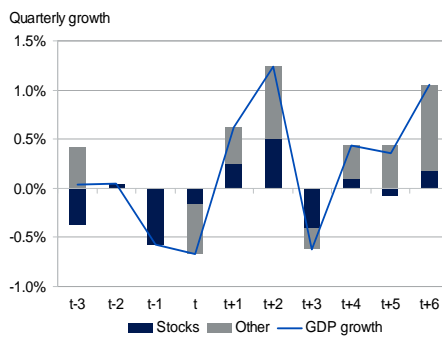


Source: Datastream, Schroders

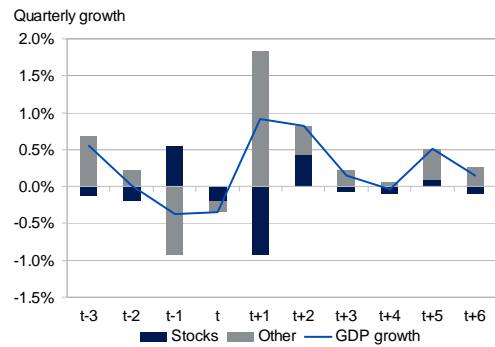
**...and UK particularly prone to “double-dip” recessions**

Though similar in shape to that of the US, the average UK cycle is more pronounced - with faster de-stocking taking place during the downturn (chart 19). Interestingly, on average, when the inventory bounce reverses in t+3, UK GDP tends to contract for a further quarter. Certainly, history tells us that the UK is prone to ‘double-dip’ recessions, falling back into technical recessions during the mid-1950’s and mid-1970’s.

**Chart 19: Average UK Cycle**



**Chart 20: Average German Cycle**



Source: Datastream, Schroders

The average German cycle is typical of Eurozone cycles: de-stocking still taking place as the recovery gets underway, with only a small inventory bounce in the preceding quarters (chart 20).

**Where are we now?**

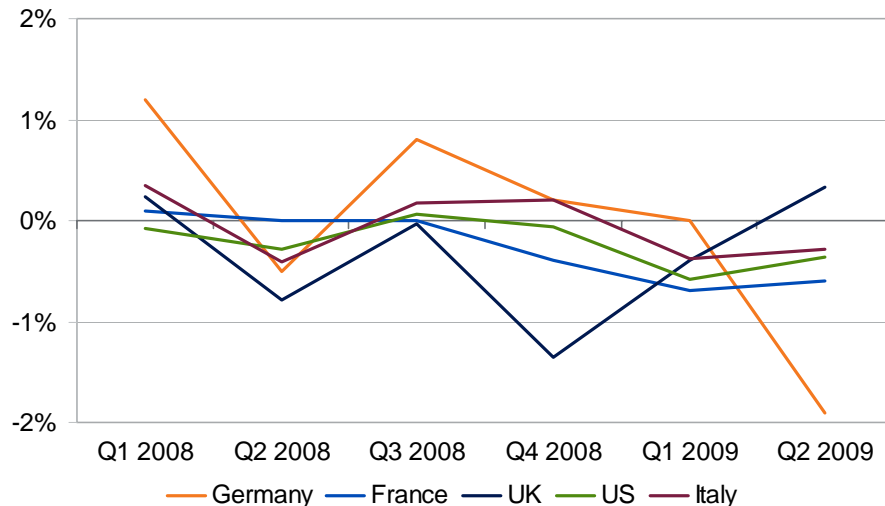
**The world is still de-stocking...**

Given what we have learnt, what can we conclude about the current inventory cycles? Germany, France and Japan have already exited recession in the second quarter, while the others, particularly the UK continue to struggle (According to preliminary estimates, the UK surprisingly contracting by 0.4% over the quarter).

Looking at the latest inventory contributions data in Chart 21, we find that the UK has already started to receive some of its inventory boost, while Germany, who is growing again, has only just started to accelerate in its de-stocking, in the same way as it has done in the past.

### Chart 21: 2008/2009 inventory cycles contributions

% point contribution to q/q GDP



Source: Datastream, Schroders

### **...suggesting upside risk to US and UK GDP forecast**

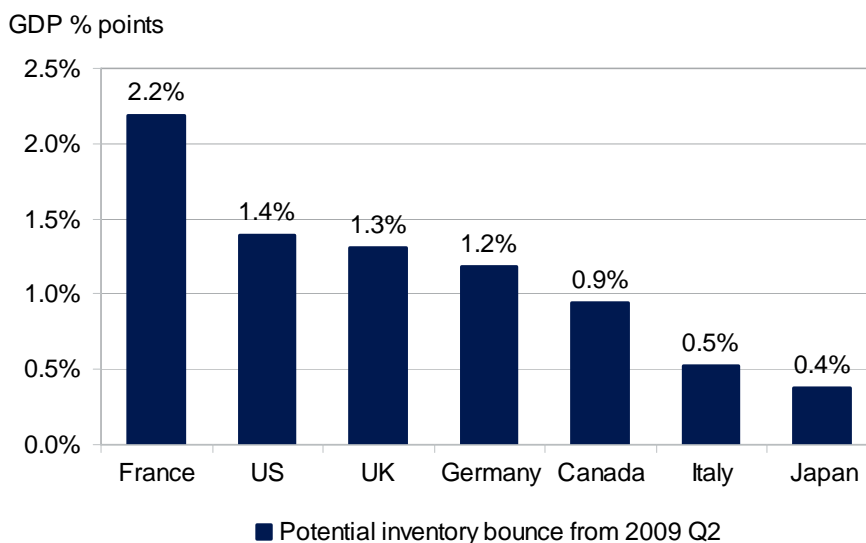
The above also suggests that the US has still to see most of the benefits from the inventory cycle. Should a recovery have started in the third quarter, we would expect the contribution, and therefore the pick-up in corporate earnings to continue to rise until at least the end of 2010. Although, there is likely to be a slowdown in t+3, consistent with the “W” shape recovery.

Nevertheless, as most economies have yet to begin the voluntary re-stocking phase, we believe that commodity prices could be well supported over 2010 as firms begin to increase production.

The size of the actual upside contribution to GDP depends on two factors. Firstly, the amount of involuntary stock-building that initially took place, and secondly, the speed and scale of de-stocking that proceeded. As the level of inventories is normally proportional to the size of an economy, the contribution to GDP should be stable over time. Therefore, we can assess the degree of de-stocking that has taken place, taking into account how much needed to be liquidated, and how much is required to return stock levels back to ‘normal levels’.<sup>3</sup>

We estimate the biggest potential contribution for GDP from inventory cycles to be for France, followed by the US and UK (see chart 22 on next page). However, given what we have learnt from examining effects from past inventory cycles, we know that the impact for France (like Germany) will come later (2+ quarters after recovery), and will be evenly distributed over a four or five quarters – making the impact less noticeable. However, the US and UK are likely to see almost all of the contributions in the first two quarters, before it begins to fade.

<sup>3</sup> To assess stock levels, we take a cumulative level in the contribution from inventories to GDP since data begins for each country. We then compare the current cumulative level to a 20-year moving average. This is shortened where data is not available.

**Chart 22: Potential inventory contributions to GDP from Q2 2009**

Source: Datastream, Schroders

### Conclusions

***Results supportive of commodities and earnings, but tough on consumer discretionary sectors***

The understanding of inventory cycles allows us to reduce the high degree of uncertainty when forecasting the prospects for economic recovery. Results from our assessment suggest greater up-side risk to our baseline growth forecast, particularly for the US and to a lesser extent the UK. However, the results also support our view that the inventory bounce will not be maintained for more than two quarters, and so in the absence of a household consumption recovery, GDP growth will slow again resulting in a “W” shape recovery profile.

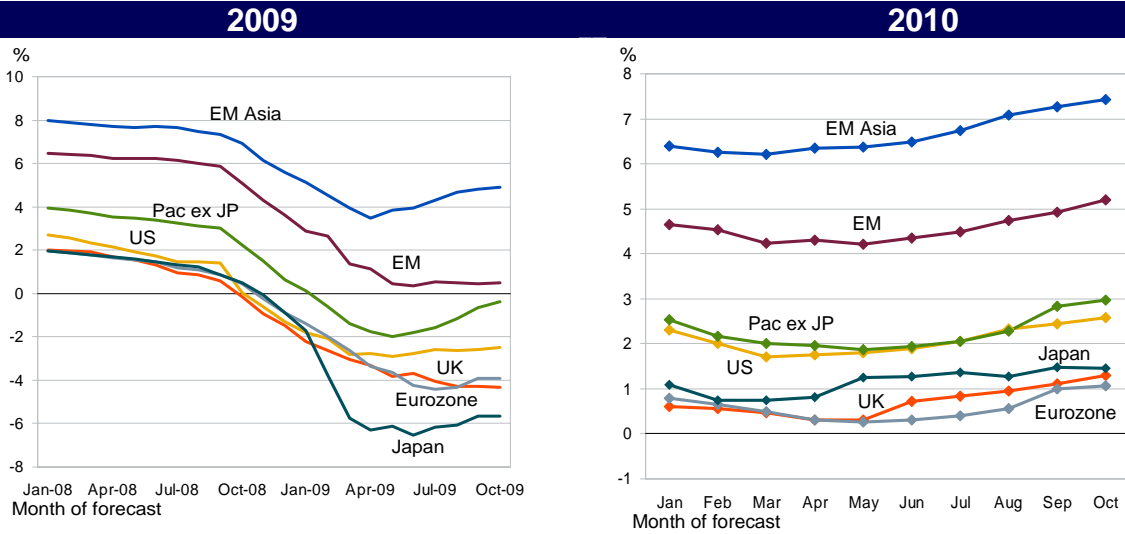
In terms of implications for strategy, with the voluntary re-stocking phase still ahead, commodity prices should be well supported over the next year. Unemployment is likely to continue rising until firms begin to start expanding capacity and inventories. This leads us to believe that the consumer discretionary sector may under-perform until that point.

Finally, with de-stocking still ongoing, corporate earnings should continue to improve over the rest of 2009. However, as non-profitable re-stocking begins, earnings are likely to disappoint over the final phase of the cycle.

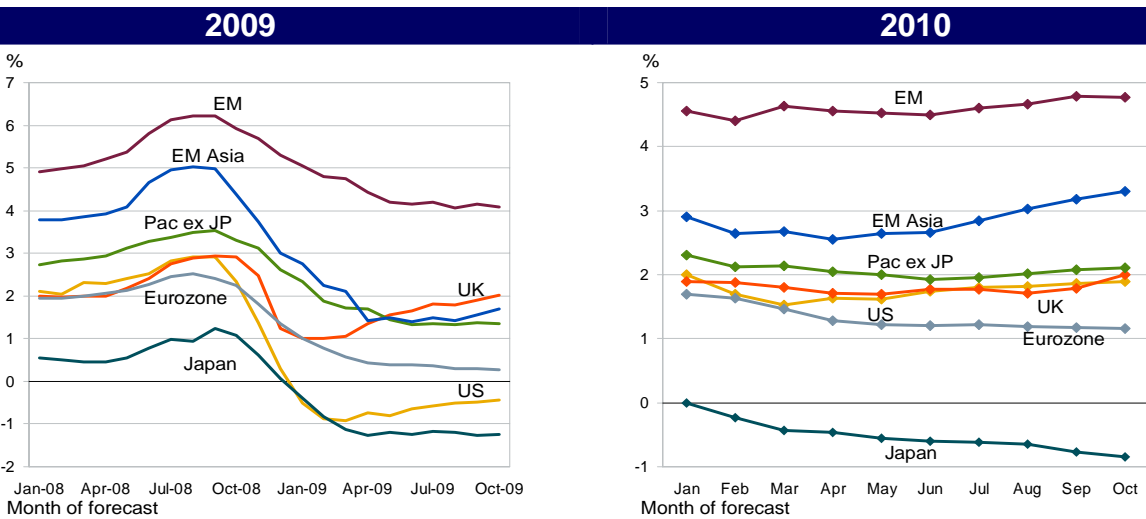
**I. Updated forecast charts - Consensus Economics**

For the EM, EM Asia and Pacific ex Japan, growth and inflation forecasts are GDP weighted and calculated using Consensus Economics forecasts of individual countries.

**Chart A: GDP consensus forecasts**



**Chart B: Inflation consensus forecasts**



Source: Consensus Economics (Oct. 09), Schroders  
 Pacific ex. Japan: Australia, Hong Kong, New Zealand, Singapore  
 Emerging Asia: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand  
 Emerging markets: China, India, Indonesia, Malaysia, Philippines, South Korea, Taiwan, Thailand, Argentina, Brazil, Colombia, Chile, Mexico, Peru, Venezuela, South Africa, Czech Republic, Hungary, Poland, Romania, Russia, Slovakia, Turkey, Ukraine, Bulgaria, Croatia, Estonia, Latvia, Lithuania

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