

The Yo-Yo Years

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There is always an understandably vigorous debate about the near-term economic outlook, but it is valuable to step back and consider the long view from a business cycle perspective.

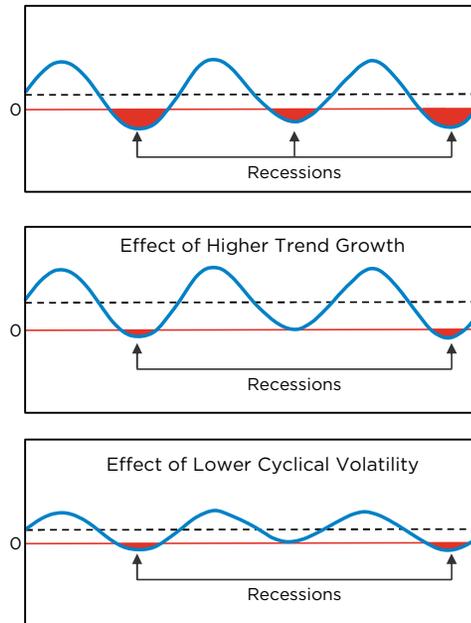
Such a viewpoint reveals that a wide range of discussions – from the debt debate to investment advice – are premised on critical assumptions that are highly questionable and, in fact, dangerous.

For years, ECRI has been honing in on a very ominous pattern in U.S. economic

growth. Actually, our initial observation goes back to the summer of 2008 (before Lehman), when our research uncovered a long-term pattern of falling growth in GDP and jobs, which then led us to the conclusion that we were entering an era of more frequent recessions than anyone was used to.

Further research shows that these cyclical patterns also hold for much of Europe. ■

A Stylized View of Recession



For starters, let us think about the business cycle in the abstract. The blue line (top panel) shows economic growth cycling up and down like a sine curve. Every time it dips below zero we get negative growth marked off by the red areas, which are recessions. The dotted line shows the long-term trend growth rate, with economic growth cycling above and below.

Suppose all this stayed the same except that *trend growth was shifted up*. Now economic growth (blue line, middle panel)

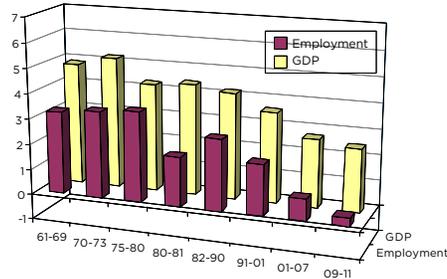
dips below zero less often, resulting in less frequent and milder recessions. This is evident today in some of the emerging markets that have strong trend growth.

Now, suppose that, with the top chart as the starting point, this time *trend growth is kept unchanged*, but instead *the cycle volatility is tamped down* so that we have smoother, tamer business cycles. Again, economic growth (blue line, bottom panel) dips below zero less often, and we get less frequent and milder recessions.

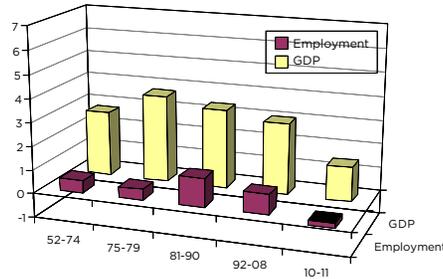
So, there are two fundamental ways to get less frequent recessions: raise long-term trend growth or tamp down cycle volatility. The latter is what happened in the U.S. from the mid-1980s through 2007 – the so-called Great Moderation of the business cycle, during which we enjoyed long expansions.

We now turn from stylized concepts to real data. ■

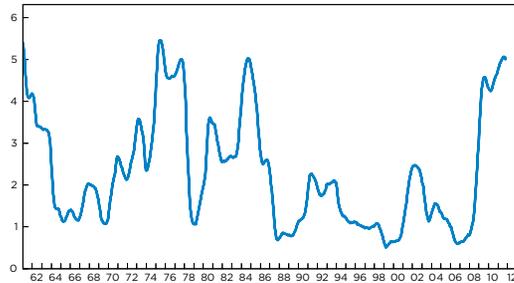
Trend Growth (%) in Output and Employment During U.S. Expansions



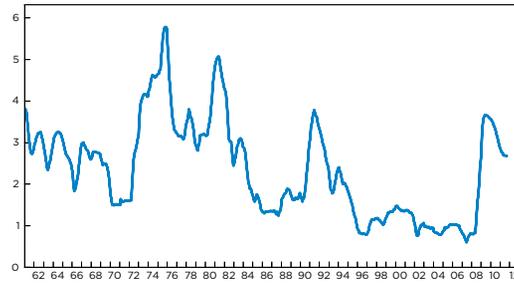
Trend Growth (%) in Output and Employment During U.K. Expansions



Cyclical Volatility of U.S. Coincident Index Growth



Cyclical Volatility of U.K. Coincident Index Growth



to see higher trend growth we have the opposite – a pattern of lower and lower trend growth during expansions that has now persisted for decades. And where we want lower cycle volatility we have a recent spike up to multi-decade highs.

The U.S. is hardly alone in this respect. The right-hand charts also show similar patterns for the U.K. Let us now turn to France and Italy. ■

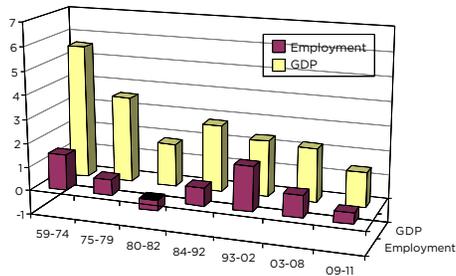
In the summer of 2008 (pre-Lehman), we were looking at a version of the bar chart (upper left corner) showing growth in U.S. GDP and jobs during each business cycle expansion over the past half-century, and saw a compelling pattern of growth stair-stepping down in successive expansions starting from the 1970s. We could not think of any good reason for that long-standing pattern to reverse itself, and therefore concluded that a weak expansion would follow the ongoing recession – *and then we got Lehman. Many know how following*

financial crises you tend to get unusually weak growth anyway, but that perspective is likely to miss this longer-term backdrop.

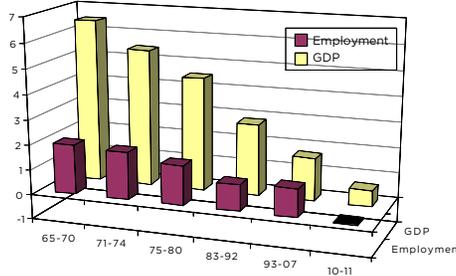
But there is more. The bottom left corner chart shows that economic cycle volatility has spiked up to multi-decade highs after being muted from the mid-1980s through 2007, based on the three-year standard deviation of ECRI's U.S. Coincident Index.

Recalling the charts from the previous page, these two patterns virtually dictate more frequent recessions. Where we want

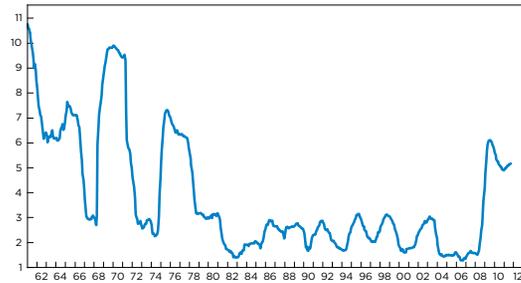
Trend Growth (%) in Output and Employment During French Expansions



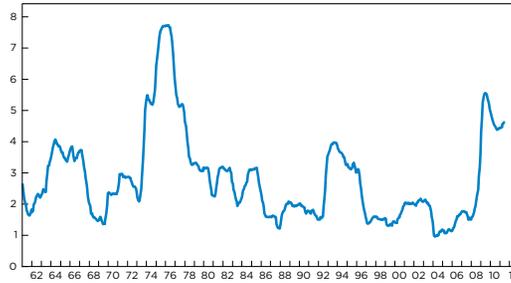
Trend Growth (%) in Output and Employment During Italian Expansions



Cyclical Volatility of French Coincident Index Growth



Cyclical Volatility of Italian Coincident Index Growth



In fact, France and Italy have the same challenge, but even more so. In Germany (not shown), we do not see a similar pattern of falling growth during successive expansions, but they do have a similar spike in cyclical volatility.

Once we have falling trend growth alongside increased cyclical volatility, the inference is clear – this combination virtually dictates more frequent recessions. This highlights a key challenge for the next five to ten years.

Starting in the early 1980s, we had three relatively long back-to-back U.S. expansions, lasting eight years, ten years and over six years, respectively, that has resulted in a popular presumption that long expansions are normal. But, as discussed, we now have extraordinarily low trend growth, while the Great Moderation of business cycle volatility is history. If so, more frequent recessions should not be a surprise, nor should they be considered unusual. For example, from 1969-82 the U.S. had four

recessions in less than 13 years. Going back a bit further, from 1799-1929 almost 90% of expansions lasted three years or less.

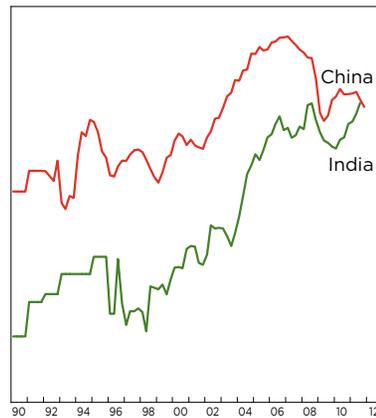
Regarding Europe, it is understood that austerity alone cannot put Greece in a tenable fiscal position any time soon because its growth prospects are so horrible. But these charts show that for Italy, France, and the U.K., longer-term growth prospects are dismal. Also, Spain (not shown) looks even worse. Essentially we are likely to see modest growth during expansions, punctuated by frequent recessions with negative growth – all averaging out to very anemic overall trend growth.

There is simply no way to square the standard fiscal assumptions with such growth prospects without radical structural changes that result in a quick reversal in these patterns of multi-decade declines in the pace of growth. This raises serious questions about the idea that Europe can muddle through by keeping markets afloat on a sea of liquidity until growth picks up in a few years.

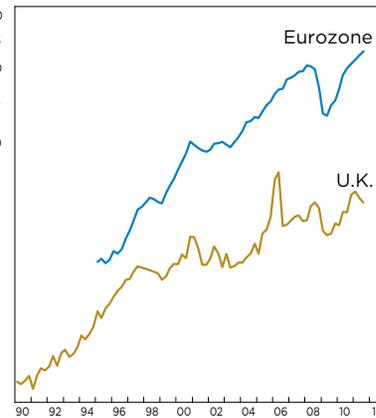
The U.S. is not that different, and faces the same chronic growth challenges – essentially slow growth punctuated by more frequent recessions.

The foregoing analysis is about *developed* economies, but what about cyclical dynamics for the *developing* world? ■

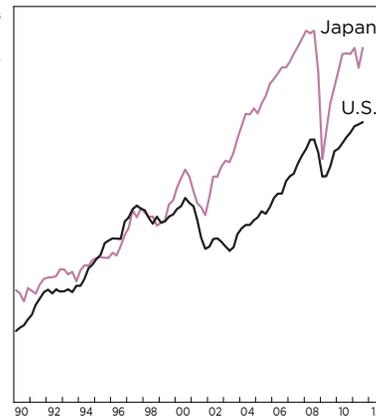
Exports as a Percentage of GDP in Asia-Pacific Region



Exports as a Percentage of GDP in Europe



Exports as a Percentage of GDP in U.S. and Japan



proportion increased from 19% in 1990 to 30% at present. In the Americas, the proportion of Canadian exports increased from 25% in the early 1990s to 45% in 2000, before falling back to around 34%. Similarly, Brazilian exports almost doubled as a share of GDP from roughly 7% in early 1991 to around 14% in late 2006, only to fall back and settle at around 12% recently. Meanwhile, Mexican exports have tripled their share of GDP, while the U.S. ratio of exports to GDP has almost doubled from 7% in 1990 to nearly 14% now.

The implications of this increased interdependence based on trade linkages are magnified by the workings of the Bullwhip Effect – let me explain. ■

The idea of "decoupling" often comes up as a way for one part of the world to dodge weakness elsewhere. But, over the last two decades, a key driver of the greater *coupling* of economic cycles had been the increasing interdependence of world economies, with more openness in the flows of capital and trade – especially merchandise trade.

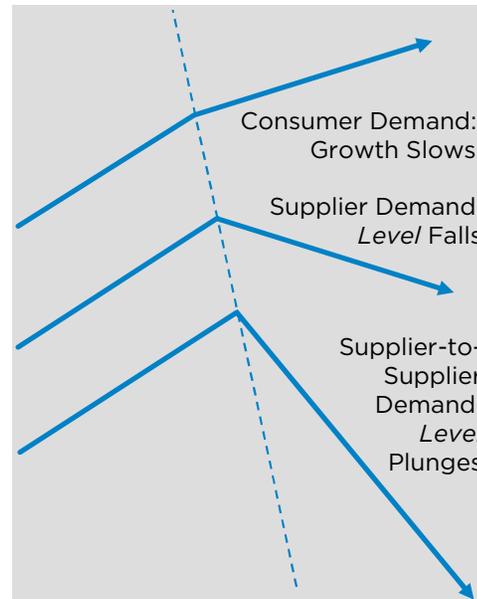
Indeed, the export dependence of most economies has risen dramatically in this period. We see that export/GDP ratios have increased sharply since the early 1990s across all countries, which is evidence of the

intensification of global integration through trade. In the Asia-Pacific region, this proportion roughly doubled for Japan, more than tripled for India and Korea, and advanced to roughly 75% from 42% for Taiwan. In China, the share of exports relative to GDP had also doubled by about 2007. Since then, there has been a gradual decrease, with exports still accounting for about a quarter of Chinese GDP.

Meanwhile, in the Eurozone, exports as a percentage of GDP have jumped to 44% from 26% in 1995. In the U.K., the

Shoe-Leather-Hide Sequence: The Bullwhip Effect

- ▶ End-user demand is moderately cyclical.
- ▶ Supplier demand is more cyclical.
- ▶ Supplier-to-supplier demand, furthest up the supply chain, is most cyclical. But supply is relatively insensitive, so *prices* become highly cyclical.



We agree with the consensus that developing economies have become a key driver of long-term secular global growth. *But*, in cyclical terms, developing economies are very much subject to the Bullwhip Effect, where small fluctuations in consumer demand growth get amplified up the supply chain into big swings in demand as one moves away from the consumer.

In effect, smaller shifts in end-consumer demand growth translate into larger fluctuations in intermediate goods demand, and even bigger ones in input material

demand, and especially in raw material prices.

Even a modest decline in consumer spending growth in developed economies like the U.S. and Europe can help trigger a significant downdraft in the level of demand from suppliers and, in turn, a serious downturn in the level of demand for "suppliers to suppliers."

Meanwhile, the development of global supply chains and the rise of several economies, such as Taiwan, Korea and China, as supplier economies, and others

such as Canada, Australia and Brazil as commodity suppliers to those economies, leaves them highly vulnerable to the Bullwhip Effect.

Indeed, a look at industrial growth cycles in the countries examined earlier suggests a good degree of synchronization across all country pairs. Essentially, cycles in industrial growth are highly synchronized, and this synchronization is likely to broaden and deepen as global supply chain networks expand further.

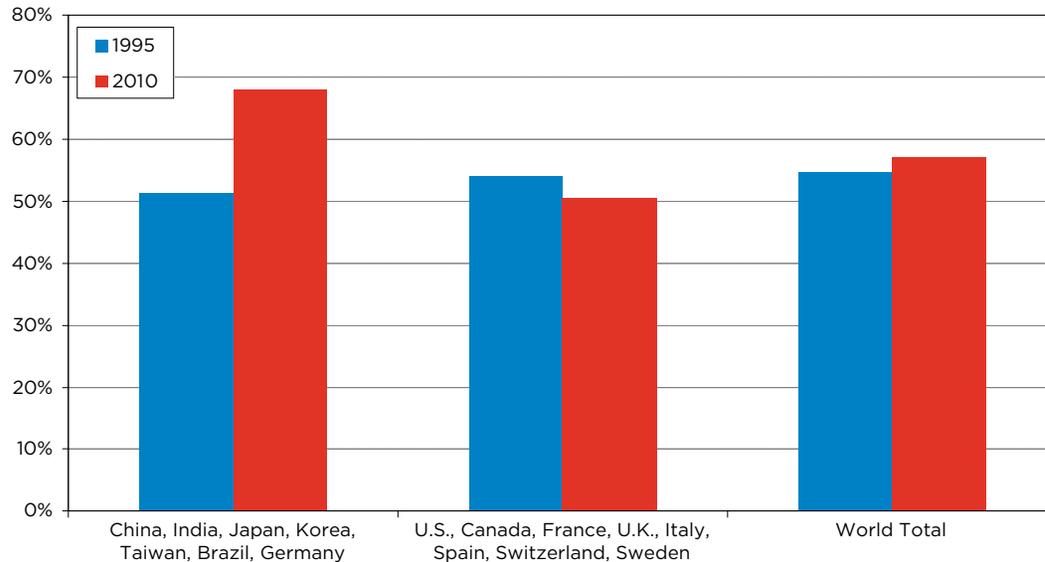
But that is not all.

Trade in intermediate goods now accounts for the bulk of total world trade – one recent study estimated it to be as high as 77% of overall trade – making it increasingly difficult for countries to decouple, especially for supplier economies deeply embedded in global supply chain networks, placing them at the mercy of final consumer demand in developed economies.

The past two decades have seen increased interdependence among world economies, especially with the export dependence of most major economies jumping during this period with the development and evolution of international sourcing and the creation and integration of global supply chains. In Korea and Taiwan, which have emerged as "suppliers to suppliers," exports are respectively about half and three-quarters of GDP.

It is worth examining how much more important trade has become than it used to be. ■

Early-stage Goods Share of Total Imports



This chart presents imports of intermediate and crude goods, also called early-stage goods (ESG), as a percentage of total goods imports in 1995 (blue bars) and 2010 (red bars). The world import share of ESG, already over 50% in 1995, has risen even further, approaching 60% in 2010.

A closer look at the breakdown of individual-country import shares is quite instructive: China, India, Japan, Korea, Taiwan, Brazil and Germany (left bars) have all seen their shares of ESG imports rise

from around 50% to almost 70%, with Germany and China registering the largest increases, with Germany's increase being almost double that of China.

The rising export dependence of these economies, with growing involvement in global supply networks, makes it increasingly difficult for economies to decouple, especially for suppliers of early-stage goods that have embedded themselves *further up* the supply chain and farther away from the final consumer.

This makes them highly vulnerable to the Bullwhip Effect and at the mercy of cyclical fluctuations in end-user demand growth. But these fluctuations stem largely from developed economies, which have entered an era of more frequent recessions that involve larger fluctuations in consumer demand growth.

This adds up to the "yo-yo years" for growth in both the *developed* and *developing* economies.

By the way, looking at broad regional coincident index growth for the Americas, Europe and Asia through early 2012, we find that it has dropped in all three regions – in sync – to their worst readings in about two years. There is certainly no decoupling there. ■

Conclusions

- ▶ More frequent recessions in developed economies
- ▶ Decoupling is a mirage
- ▶ “Yo-yo years” for both developing and developed economies

In conclusion, for the developed economies the upshot is that any slowdown has a higher risk of culminating in recession.

So the question in most developed economies is not *whether* there will be a recession, but *when*. ■