Topics: a look at the Earth's economic and financial pulse through the eyes of an alien

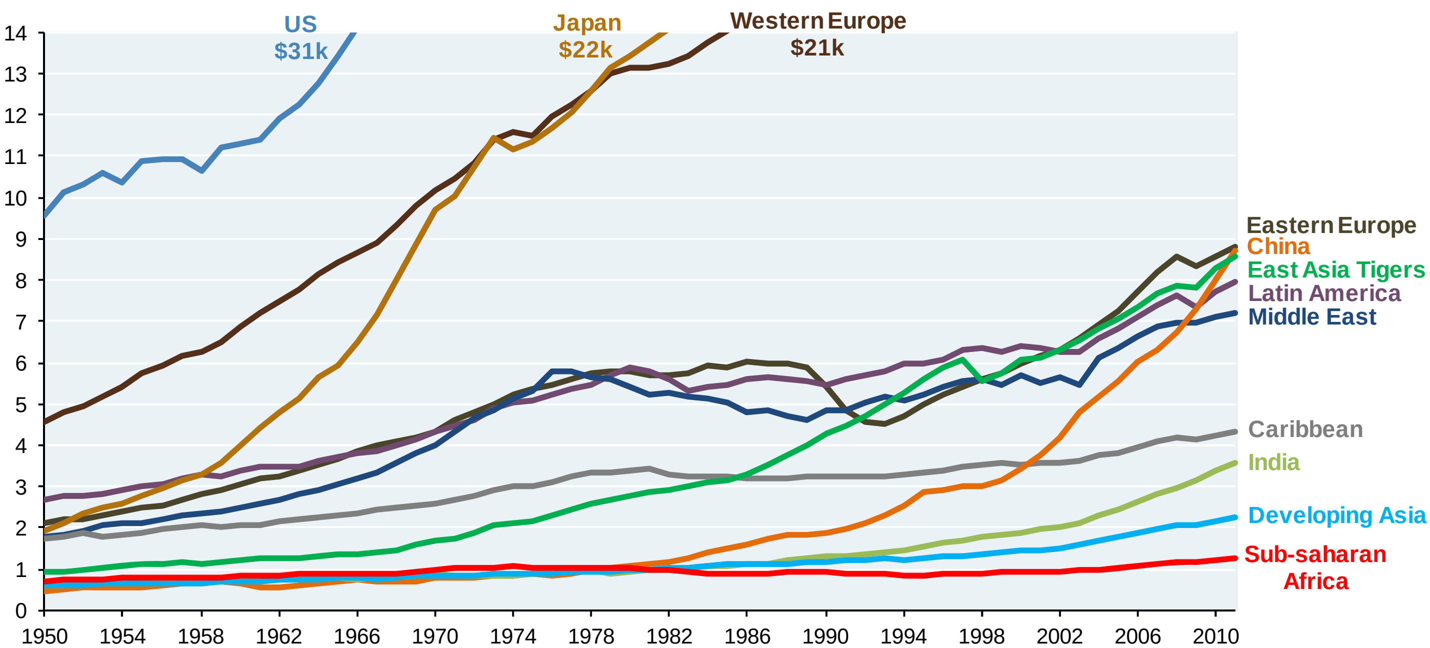
Many of our investor clients are grappling with the co-existence of elevated macroeconomic risks and the apparent cheapness of corporate profits. We have discussed before our take on how to respond: with a portfolio whose directional equity risk is modestly below normal (mostly a consequence of conspicuously avoiding European equities), offset by other investments to take up the slack (macro hedge funds, distressed real estate, private lending, etc)[1]. This week, a look at what Earth's major markets and economies would look like to a visitor from another planet. But first, I tried to imagine what an alien might notice about what's happening to the oldest inhabited territory on Earth.

"What can be done about Africa, and what is social investing?"

A visitor from another planet might be startled about the birthplace of man: as shown below, sub-Saharan Africa is not really participating in the dramatic growth in post-war real per capita incomes. While some regions suffered prolonged bouts of economic stagnation, none registers the barely faint pulse found in sub-Saharan Africa. There is no room to address the political, social and economic factors that have led to this (how much is self-imposed vs the result of foreign interference is one of the most hotly debated issues in the history of public policy). All one can say is that much of the subcontinent is in dire shape. There are many governments and organizations that are trying to help, but despite this, millions of people in Africa, many of them children, die from infectious diseases and a variety of maternal and infant health issues that the rest of the world conquered long ago. In many African countries, diarrhea is the #1 cause of death for children under 5. It will be difficult for Africa to improve growth, productivity and prosperity until basic health and human services issues are brought under control.

Africa in context

Per Capita GDP, real constant dollars, thousands



Source: *"Statistics on World Population, GDP and Per Capita GDP, 1-2008 AD"*, Angus Maddison, University of Groningen.

There are success stories to build on. In the last decade, malaria deaths in Africa dropped by 30% due to increased investments in malaria drugs, insecticide-treated bed nets and indoor residual spraying. Another example: the Meningitis Vaccine Project developed a new, low-cost vaccine designed for populations that are plagued by seasonal outbreaks of meningitis A. The vaccine was administered at 50 cents per dose to nearly 20 million people in Africa during the 2010-2011 epidemic season. Africa will also benefit in the years ahead from improved infrastructure to distribute vaccines and other medicines after the creation of GAVI, the Global Alliance for Vaccines and Immunization.

The challenge: pharmaceutical companies often have little incentive to invest in products which disproportionately benefit Africa, since such products are sold almost exclusively to poor populations, governments or not-for-profit entities. As a result, these investments have been funded primarily through grants from not-for-profits (NFP) and sovereign donors. There is a different way that people of means can help: through **social investing**. To be clear, this is more about the "social" rather than the "investing". Here's how it works: instead of making a grant to an NFP to fund research, regulatory approvals and distribution, you provide capital to a social investment fund. The fund provides low-cost capital to a drug company, usually in exchange for a commitment to sell the treatment at low cost to global health agencies. The fund selects later-stage treatments

[1] See Eye on the Market, March 8, 2012

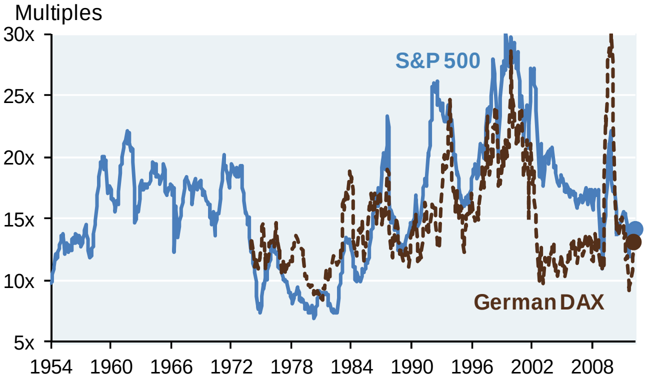
with a higher chance of success based on co-sponsorship from organizations whose medical experts were involved from the beginning. If the treatment works, the drug company returns capital to the fund along with a low single-digit return, so that capital can be redeployed in new treatments. If the treatment does *not* work, the drug company does not have to pay back capital (remember, it's not a traditional loan). However, large philanthropic organizations and governments often provide a safety net, for example by absorbing the first 20% of loss, and 50% of losses thereafter (i.e., the most an investor would lose is 40% of principal). Compared to an outright grant, there's more leverage given ongoing redeployment of funds. Some believe that social investing also creates better outcomes than grants by creating incentives and more accountability. If social investing in African health is a topic that you want to learn more about, our people can provide more detail on what we are working on.

"How are the world's commercial enterprises currently valued?"

The alien might then ask about Earth's commercial enterprises, and how they are valued. Most countries employ a capitalist model in which companies operate independently from the state, raise money from institutions and individuals, and return it to them in the form of future dividends. **There have been other economic models and systems**: Soviet Bolshevism; the Latin American Import Substitution model; the Nehru/Gandhi Central Planning model; pre-war economic Fascism in Italy, Germany, and Spain; and Maoist Collectivism. These experiments are generally associated with stagnant per capita income and fared even worse than capitalism, with Maoism being perhaps the most spectacular economic failure in recorded history[2]. As a result, capitalism keeps on going, with its regional variants often reflecting how much independence central banks and private sector banks actually have. The last decade has seen rising per capita incomes across the emerging world; how much is due to market liberalization vs. exchange rate intervention has yet to be accurately determined.

Current valuations of commercial enterprises are not demanding in an historical context. As shown below, valuations are at the lower end of historical ranges in the US and Germany. The rock-bottom price to earnings multiples of the 1970's were mostly a function of rampant inflation, which reduced the real value of earnings. **Consequently, an inflation-adjusted version of this chart would make today's valuations look cheaper still**.

Price-to-trailing earnings
Multiples



Source: Standard & Poor's, Datastream.

Valuation snapshot as of April 20, 2012

	Fwd P/E	Fwd EPS	Div Yld	RoE	Market cap (Billion USD)
US	12.5	10.9	2.2	15.4	13,570
Europe	9.7	7.4	4.4	16.6	8,262
France	9.4	4.6			1,310
Germany	9.7	12.4			1,099
UK	9.6	5.1			2,596
Spain	8.4	-1.6			400
Italy	7.8	17.2			363
China	9.0	11.2	3.5	16.9	1,349
India	13.1	16.4	1.7	17.3	732
Asia-Ex-Japan	11.1	16.0			5,230
Indonesia	13.1	13.8	2.8	24.5	239
Malaysia	14.3	11.2	3.0	14.3	301
Korea	9.2	31.5	1.0	14.1	848
Japan	12.4	66.5	2.5	4.6	2,826
Latin America	10.9	9.9	3.5	12.9	1,650
Brazil	9.5	6.7	4.0	12.6	927
Mexico	15.4	28.2	2.2	15.2	315
Eastern Europe	6.3	-4.1			801
Canada	12.0	9.6			1,411
Australia	11.1	9.5	5.1	13.9	978

Sources: Bloomberg, J.P. Morgan Securities LLC, MSCI.

The table shows current valuations based on forward earnings estimates, estimated earnings growth, dividend yields, return on equity and market cap. The cheapness of private sector earnings vs. history is not just observed in the US and Europe. Of the emerging economies, only in Mexico and the Philippines are valuations above 10 and 15 year averages. Note that Japan's earnings growth is still distorted by the tsunami and its aftermath. Its extremely low return on equity is not, and reflects long-standing problems of low returns on capital for a large part of the investible Japanese corporate universe.

A quick assessment of the US earnings pulse shows that it's still alive. One third of companies by market cap have reported, and 83% outperformed the low bar companies set these days. A more interesting measure is the extent to which earnings beat expectations. So far, earnings have exceeded estimates by 5% in Q1, within the 4%-9% range that has prevailed since March 2009. On a global basis, earnings revisions have finally stopped falling after 40 weeks of declines. [*see charts on next page*].

[2] In a May 2011 EoTM, we discussed the *Cultural Revolution*, the *Great Leap Forward* and the tens of millions of deaths that resulted.

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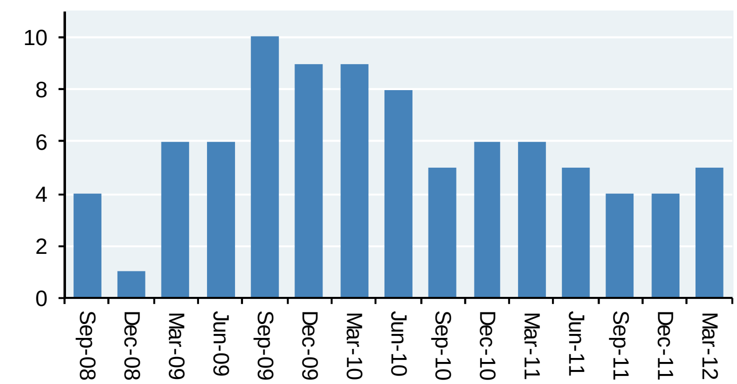
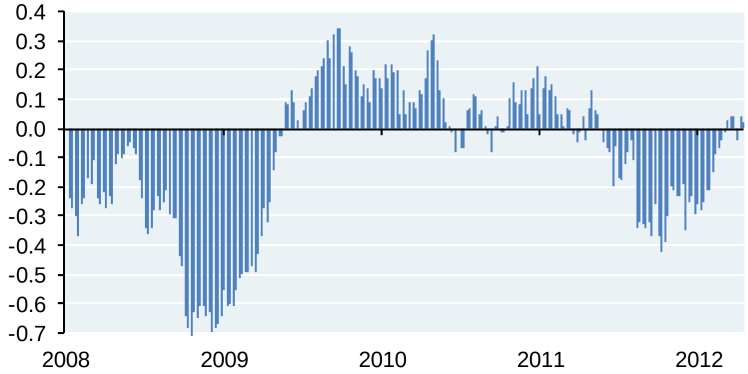
S&P 500 EPS actual vs. estimate, ex-financials
Percent



Source: FactSet, Barclays Research.

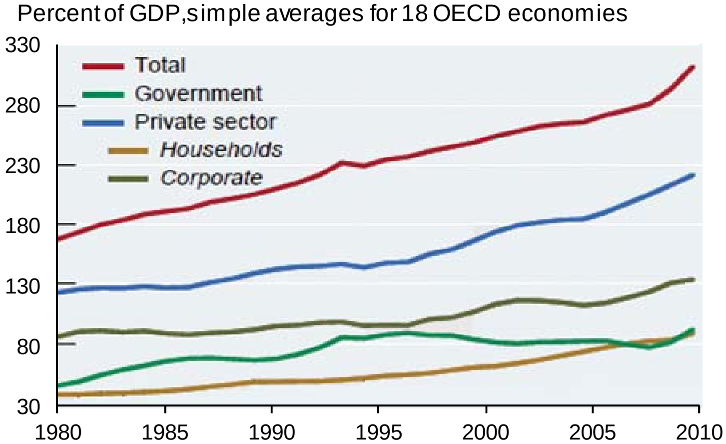
Global earnings revisions
(# of upgrades minus # of downgrades) / total revisions



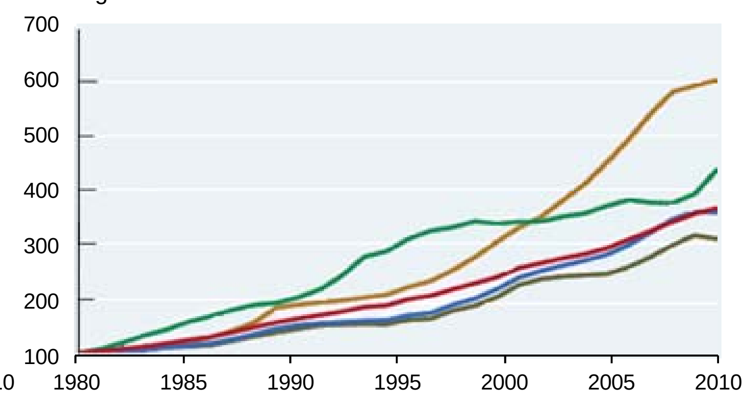
Source: Citigroup, Bloomberg.

If the alien were to ask why stocks are cheap vs history, I would explain that there are factors other than profits that affect valuations. One such factor is the level of household, corporate and government debt across the OECD, which almost quadrupled in real terms from 1980 to 2010. Debt has come down a bit since the BIS pulled this data together last year (e.g., US household debt has declined from a peak 99% of GDP to 86% of GDP), but in aggregate, this is still a huge challenge for the West. The world's central banks are generously providing the most abundant liquidity in history to soften the blow of de-leveraging. Since 2009, this liquidity has benefitted real assets like gold, and in fits and starts, financial assets like stocks and credit. The benefits for real economies are less visible, given GDP growth rates well below prior recoveries.

OECD non-financial sector debt
Percent of GDP, simple averages for 18 OECD economies



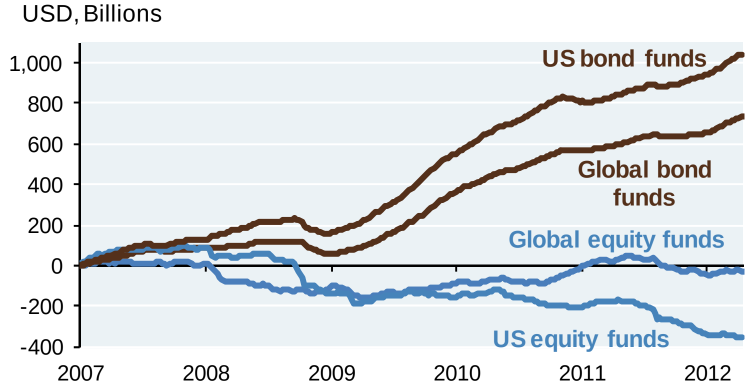
OECD non-financial sector debt
Real levels, deflated by consumer prices, 1980 = 100, simple average of 16 OECD economies



Source: "*The real effects of debt*", Stephen G Cecchetti, M S Mohanty and Fabrizio Zampolli, September 2011, Bank for International Settlements.

It is not that simple to synthesize elevated macro risks and cheap valuations into an investment strategy. The world's economic imbalances have caused some investors to shun equities in favor of government debt, (see chart of the last 3 years of cumulative mutual fund flows into and out of equity and fixed income funds). The rationale for caution: governments may address deficits more through taxation of the private sector than through spending cuts; and as per the Rogoff thesis, debt levels this high tend to reduce future growth. However, the equity valuation backdrop as outlined above incorporates a lot of this negative news. As a result, we prefer *caution* to *panic* in constructing portfolios.

Mutual fund net flows
USD, Billions



Source: EPFR Global, AMG, ICI, J.P. Morgan Securities LLC. *Net flows for Global funds are calculated as the cumulative total of the 4-week moving avg.

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"Why is everyone on Earth talking about Spain?"

The next question the alien might ask: "why is everyone talking about Spain, and why does it affect their investment strategy? Doesn't Southern Europe in aggregate only account for 6% of Earth's GDP?" Yes, Southern Europe *is* only 6% of global GDP, and several similarly-sized parts of the world are doing better. The table below breaks Earth down into a few categories, with the ones at the top representing less near-term disruption risk in our view. In principle, the strength of commodity countries, much of Asia and Latin America would offset Southern European problems. In addition, China has the scope to relax monetary and/or fiscal conditions, which we think will be necessary given the sharp decline in China's private sector growth trend.

2012-2013 disruption risk	Category	Examples	% of World GDP	% of World Net Sov Debt	% of World Bank debt*	% of World Trade
Lower	Asia, in growth mode despite tighter monetary policy	Kor, Sing, Tai, Mal	7%	4%	8%	16%
	Developed commodity countries	Aus, Nor, Can	6%	0%	6%	5%
	Commodity EM doing fine	Rus, Saudi, S Afr	6%	0%	2%	6%
	Latin America chugging along	Bra, Chi, Col, Mex	7%	4%	4%	5%
	India, cooling to 6%-7%	India	3%	3%	1%	2%
	China, cooling to 8%	China	12%	4%	2%	11%
Medium	Japan back to pre-Fukushima 2% growth rate	Japan	8%	21%	4%	5%
	US OK as long as fiscal cliff doesn't hit hard	US	23%	34%	24%	12%
	Outer Europe with their own currencies (TGWDUTE)	UK, Den, Swe, Swi, Pol	7%	6%	17%	8%
	Eurovirus (northern strain)	Ger, Fra, Neth, Bel	12%	12%	20%	20%
	Eastern Europe: Eurovirus alert	Hun, Rom, Ukr	1%	1%	1%	1%
High	**Eurovirus (southern strain)**	**Sp, It, Port, Ire, Gr**	**6%**	**10%**	**9%**	**7%**
	Mideast tinderbox region	Iran, Pak, Egypt	2%	1%	0%	1%

* a measure of BIS bank claims from outside each country

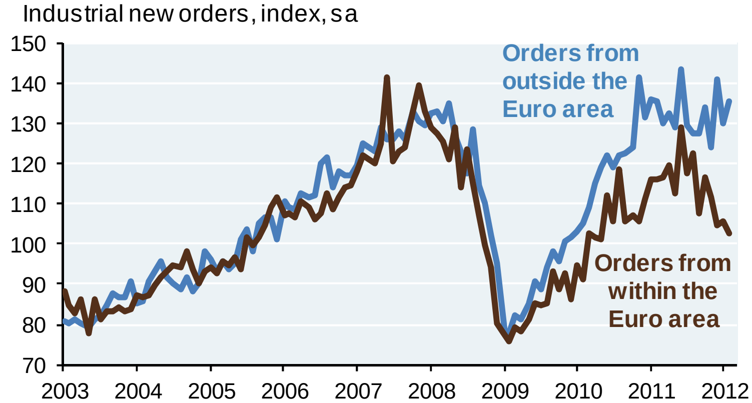
TGWDUTE = "thank goodness we don't use the Euro"

That being said, Earth's problem with Southern Europe is one of transmission risk and non-proportional impact:

- While Southern Europe is only 6% of global GDP, it has a **higher representation of the Earth's sovereign debt and bank debt.** In recession, the region causes more than a proportional problem for the leveraged financial system described on the prior page. Even with German and French bank claims on Southern Europe having fallen in half since 2007 (see page 6), potential losses on remaining claims still represent a large percentage of European bank capital.
- The table shows what each country reports as its sovereign debt, but **these figures may be underestimated**. Spain's central government and regional debt is reported at 68% of GDP. After accounting for bank restructuring costs, write-downs on development bank loans, potential losses on government guaranteed private sector debt, and possible losses on Spain's share of loans to other countries in Southern Europe, we estimate Spain's debt as being ~85% of GDP[3].
- The table does not capture **how countries finance their sovereign debt**. Japan's sovereign debt is large relative to its GDP, but is 93% owned domestically; and the US is (for now) the world's reserve currency. Southern Europe's reliance on cross-border capital required the ECB to take extraordinary steps to offset it when it fled.
- The **transmission risk to Northern Europe** is material. As shown, the collapse in Germany's new orders from within the Euro area is substantial. This week's business sector surveys in Europe were *very* weak, and the only surprise to us was that people were surprised.

Germany: decline in orders from within the Euro area

Industrial new orders, index, sa



Source: Statistical Office of the European Communities.

The French and German economies are stagnant right now. Economic strains in France contributed to increased polling for the National Front, and the Netherlands is struggling with the fiscal compact just agreed to last year. **Germany may have to decide sooner rather than later if, how and when it will pay the freight of European fiscal integration if it wants to preserve the Euro.** Earth may be able to outrun the collapse in Europe's periphery if the ECB keeps printing money and the IMF increases its firewall, but it's not going to be easy.

[3] You will find much higher estimates of "fully-loaded" Spanish debt/GDP circulating on the internet, but they often assume 100% loss on government guaranteed paper, even when there are assets or revenues collateralizing them. I disagree with how they are calculated.

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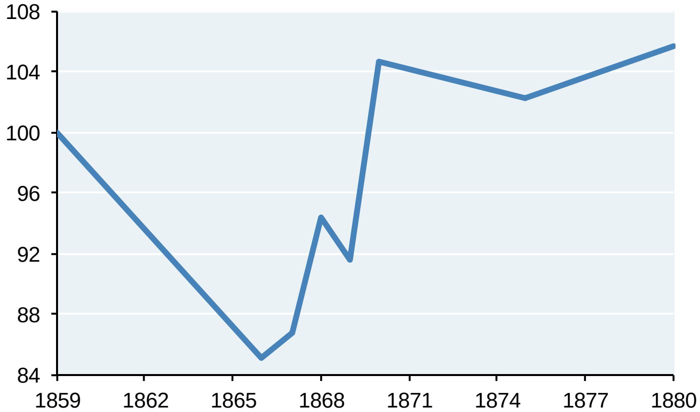
<u>"Resilient, aren't they?"</u>

I assume that an alien visiting Earth would have benign intentions. Stephen Hawking ("*A Brief History of Time*") has warned against this; "*We only have to look at ourselves to see how intelligent life might develop into something we wouldn't want to meet. I imagine they might exist in massive ships, having used up all the resources from their home planet. Such advanced aliens would perhaps become nomads, looking to conquer and colonize whatever planets they can reach.*" But let's assume I am right. A final observation by our departing alien might be that humans are pretty resilient: no matter the catastrophe they visit upon themselves, they show an ability to rebound. After the Fukushima tsunami, we revisited the history of human catastrophe and recovery, and found examples in the Confederate United States and in post-WWII Europe.

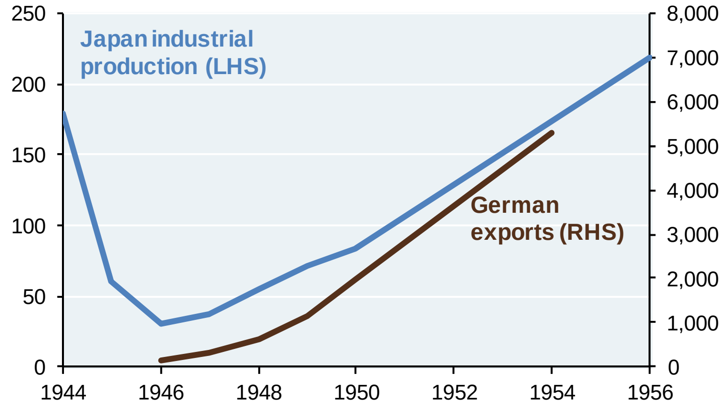
Post Civil War recovery in Confederate farm income

Index, 100 = 1859



Post World War II recovery in the Axis Powers

Index | Millions of dollars

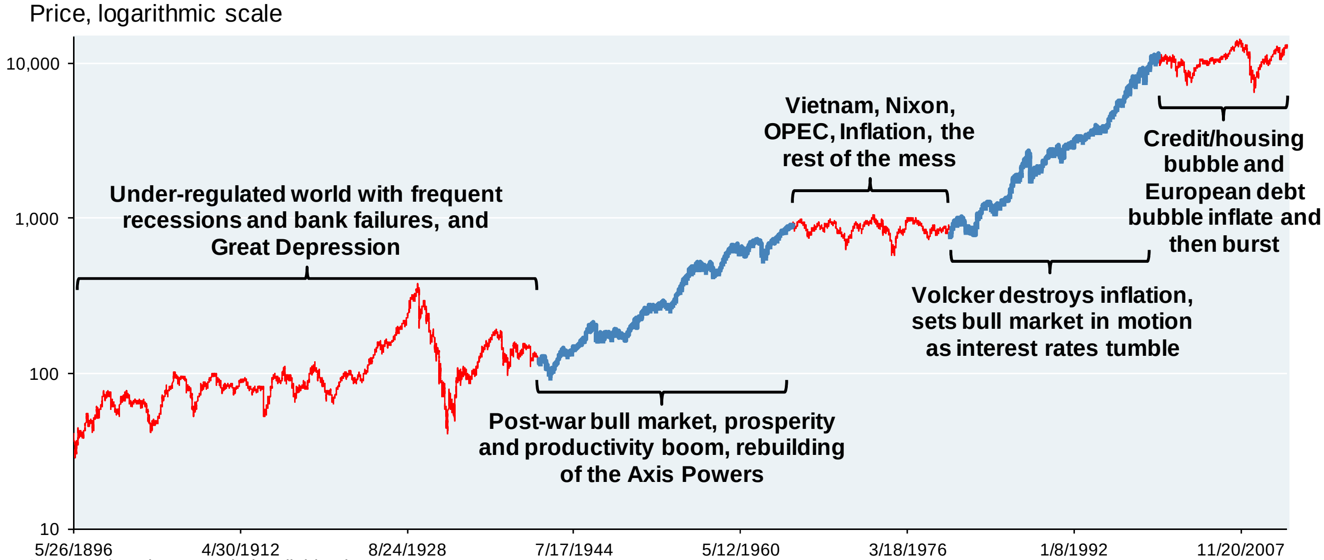


Source: "*Economic Behaviour in Adversity*", Jack Hirshleifer, The University of Chicago Press, 1987.

Resilient yes, but mistake-prone. While capitalism has outlasted the models described on page 2, it's under some pressure right now. What is notable is that anti-business sentiment often clangs the loudest in the same policy circles where public policy had the greatest contribution to the global recession (US affordable housing policy and its impact on $5 trillion of housing finance; and the Euro, a monetary-but-not-fiscal mélange of countries with vastly different productivity, growth and capital formation characteristics). Where to from here? There have been two mega-bull equity markets over the last 100 years, surrounded by the periods in red. It might take a bit longer to exit the sideways channel that has prevailed over the last decade. The unbridled pleasure of bull markets prompts some observers to frequently proclaim the arrival of a new one. However, I would rather see markets for what they are, rather than for what we want them to be; it makes for sounder investing.

Dow Jones Industrial Average, May 1896 to April 2012

Price, logarithmic scale



Source: Bloomberg. Excludes dividends.

Michael Cembalest

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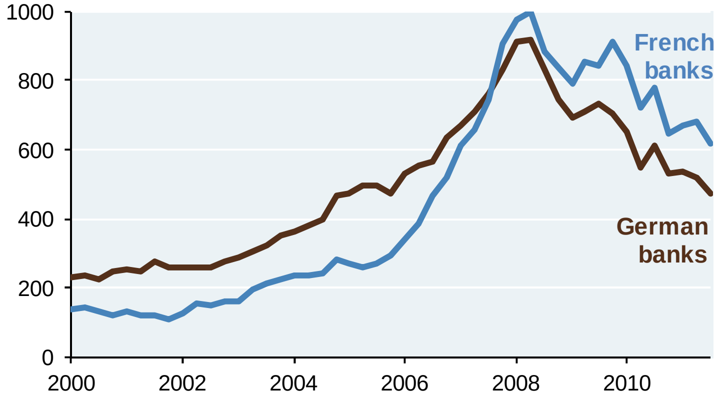
Core bank claims on Portugal, Greece, Ireland, Spain,Italy
Billions, USD



Source: Bank for International Settlements.

One more chart: we track the **exposure of French and German banks to borrowers in Europe's periphery**. While Northern European banks have been aggressively shrinking their exposure, the levels are still high when thinking about potential losses as a % of European bank capital. To illustrate, in an analysis we did last year, US banks hold around 2%-3% loan loss reserves on performing loans; in Europe, this number is 0.5%. To be clear, a break-up of the Euro would require substantial recapitalization of Northern European banks. The question is whether the region as a whole will pay a larger price in the long run to keep it going.

P/E = Price to earnings; EPS = Earnings per share; RoE = Return on equity; BIS = Bank for International Settlements
DAX = Deutscher Aktien Index; OECD = Organization for Economic Cooperation and Development
IMF = International Monetary Fund; ECB = European Central Bank

IMF government net debt is calculated as gross debt minus financial assets corresponding to debt instruments. These financial assets are: monetary gold and SDRs, currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable.