Outlook 2014:2

17 November 2014

Swedish **Growth** Barometer

About the Swedish Growth Barometer

The Swedish Growth Barometer is a platform for international companies where the global conditions for growth are analyzed and discussed. The core methodology employed is one where macroeconomic analysis is enriched by company specific outlooks in dialogues with business leaders.

In addition, the Swedish Growth Barometer publishes three economic forecasts, two thematic studies and two Outlooks every year. The Outlooks contain updated and summarized forecasts as well as a summary of the latest thematic study. More information and all publications are available at tillvaxtbarometern.se.

The project was initiated in 1997 and is operated by Blue Institute, with support from VINNOVA, Sweden's innovation agency. Blue Institute is a think tank and a research institute. For more information visit blueinst.com.

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Market situation and forecast

This is an abridged version in English of the Swedish Growth Barometer semi-annual outlook. The full publications are available in Swedish at tillvaxtbarometern.se/publikationer.

Geopolitical crises hamper global recovery

Like so many times before during the last few years, the global recovery has been surprisingly weak and many forecasters have lately been forced to revise down their predictions. The Eurozone barely escaped a triple-dip in H1, Japan experiences the fourth recession since 2008, mediocre developments continue in China, Brazil and Argentina are in technical recession, the Middle East and Eastern Europe are plagued by conflict, etc. Meanwhile there are some bright spots like the US that bounced back significantly after the winter freeze, the UK that continues its steady recovery and India that recorded the strongest GDP-quarter since the beginning of 2012.

Growth rates vary a lot among the larger economies. The BRIC cluster cracks into leaders and stragglers and the growth gap persists and even widens between the US and the UK on the one hand and Continental Europe on the other hand. Weighing the economies in the graph below, amounting to 75 percent of global GDP, suggests that the world economy has expanded by some 3 percent in H1 2014, in line with or slightly below our April forecast. Moreover, while sentiment is pointing upwards in the US business barometers in the rest of the world are moving sideways or dropping.

Several geopolitical bombs have detonated the last 12 months that have significantly affected the global economy, in particular Europe. Thus far the negative economic effects of political tensions have been merely connected with increased uncertainty, which *per se* dampens economic activity. Still, Russia's importance as an export destination is relatively small, though Russia is an important market for neighboring countries like e.g. Finland.

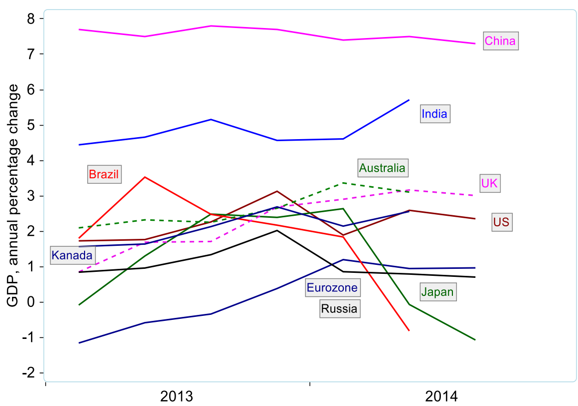
The economic risks related to the Ukraine crisis are, however, not primarily related to a potential drop out of export to Russia, Russia's shares of global trade and global GDP are only around 3 percent. The main risk is instead that Russia will use its strong position as exporter of fossil fuels.

However, as yet we have not recorded noticeable effects in terms of rising oil and gas prices. On the contrary, fuel prices have been dropping lately, probably due to the weak global business cycle and the ongoing US shell gas boom.

Slow commodity inflation has in turn helped to push down inflation and bond yields in recent years, at least in the Western world. Declining inflation has forced the ECB and the Riksbank to cut policy rates and the Fed and the BoE to postpone any tightening which to some extent has contributed to counteract the economic downturn. Moreover, there are good reasons to expect further non-conventional monetary policy measures at least in the Eurozone, in order to stave off a Japan-like deflation spiral.

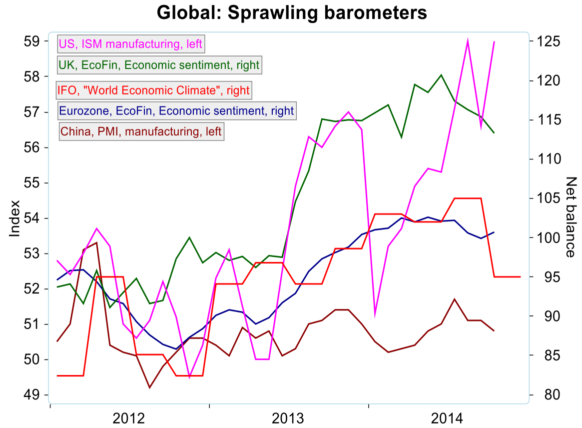
In summary, there is very little to suggest that the global economy is in for a significant rebound the next few quarters.

Global GDP



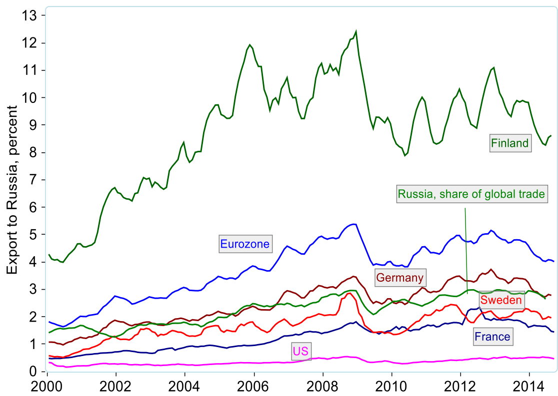
Source: Swedish growth barometer & Macrobond

Global: Sprawling barometers



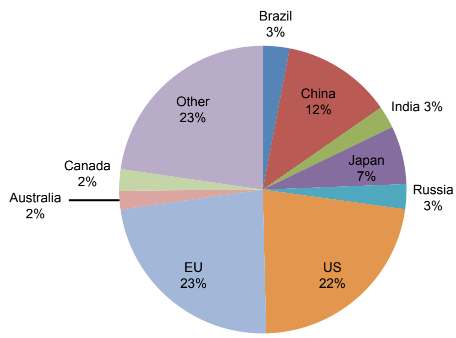
Source: Swedish growth barometer & Macrobond

Russia: A relatively small player

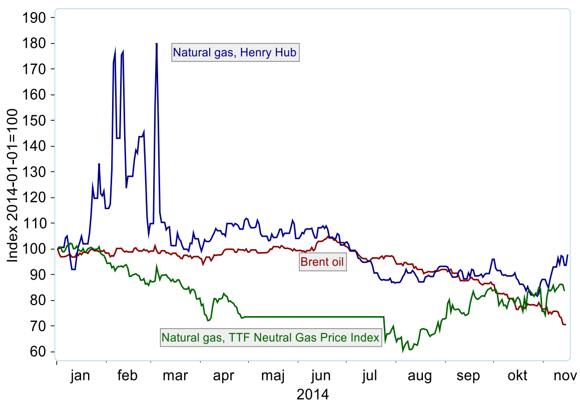


Source: Swedish growth barometer & Macrobond

Global GDP 2013

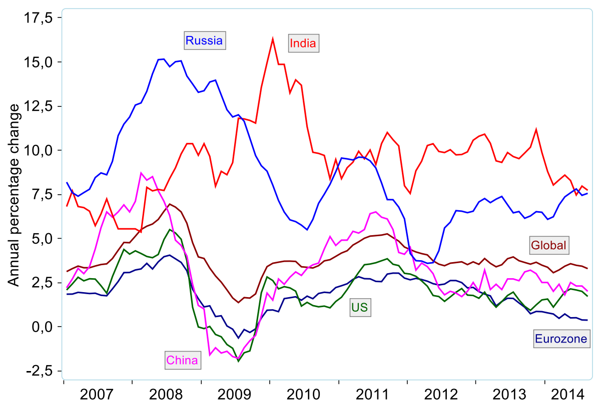


Still no fossil price shock from the Ukraine



Source: Swedish growth barometer & Macrobond

Global inflation on downward trend



Source: Swedish growth barometer & Macrobond

The US on recovery track

The US economy shows the strongest performance among the large developed countries with growth rates in the decent interval of 2-2.5 percent the last three years. Still, although the US outperforms most other developed economies, the country is experiencing a historically slow recovery in the wake of the financial crisis.[1]

In contrast with the historical pattern, this time the US recovery is not propelled primarily by a strong investment rebound. Although fixed investment bounced back when the acute crises lost its grip in 2010 the expansion has faded significantly since then.

In connection with the latest four episodes, fixed investment at the corresponding phase of the recovery was 20-45 percent above the pre-recession levels, compared with only 5 percent this time around. Hence, fixed investment as share of GDP is still below the pre-recession level. One fundamental reason for the mediocre investment recovery is probably the relatively weak profit rebound compared with previous episodes.

However, not only fixed investment has been relatively slow to rebound, so has private consumption which pattern typically strongly resembles that of GDP. Private consumption has certainly supported the recovery but according to the historical pattern consumption "should have" jumped by 20-25 percent at this stage instead of 8 percent.

The relatively powerless consumption rebound should come as no surprise given the weak increase in disposable income the last few years. This can in part be explained by the relatively slow employment recovery. Despite feeble growth, private consumption has continued its trend towards an increasing share of GDP, supported by declining household savings rate, and has now reached almost 69 percent of GDP.

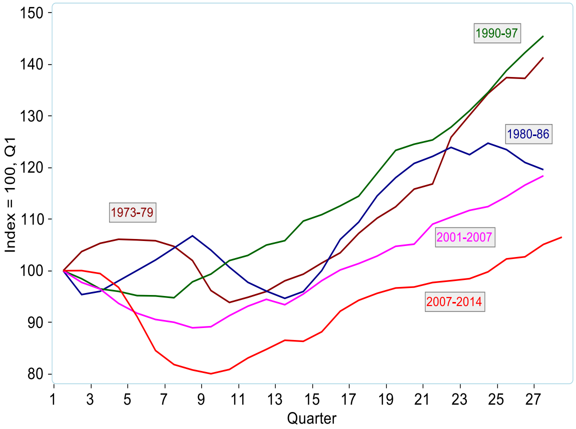
While the recovery has been relatively slow we expect the US to have entered a self-sustained virtuous spiral where rising employment gives a boost to income and consumption which in turn supports investment, etc. Employment has lately exceeded pre-crisis levels and unemployment has dropped by 4 percentage points since the peak and more of the same is probably to come.

Improvement in the labor market has boosted consumer confidence and business barometers like the ISM have reached historically high levels. Leading investment indicators have also rebounded lately, suggesting some investment acceleration ahead. Still we only expect modest GDP growth around 2.5-3 percent the next quarters.

The lackluster economic and labor market recovery has also implied modest wage and price increases. Inflation is still below the Fed's target of 2 percent while hourly earnings are rising by 2-2.5 percent. Hence, there is not much to suggest a swift and aggressive monetary policy tightening. Meanwhile, we have to realize that the Fed has taken different emergency measures and injected an extreme monetary stimulus in the wake of the financial crisis. As the economy has stabilized the need for life support has faded and, hence, the Fed stopped accumulating financial assets in October. We expect the central bank to start cautiously normalizing the policy rate in the spring of 2015.

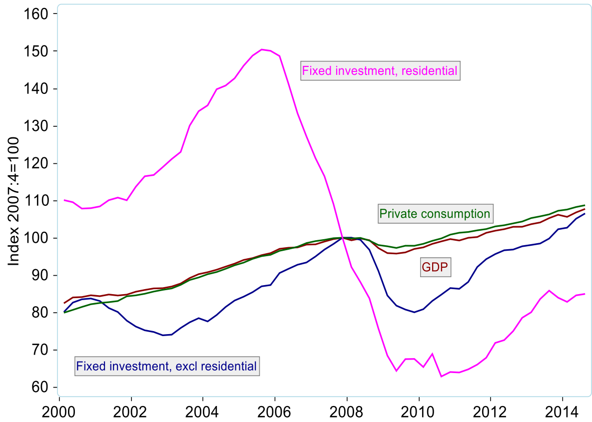
[1] See The Swedish Growth Barometer's forecast, April 2014, for details.

US: Weak investment hampers recovery



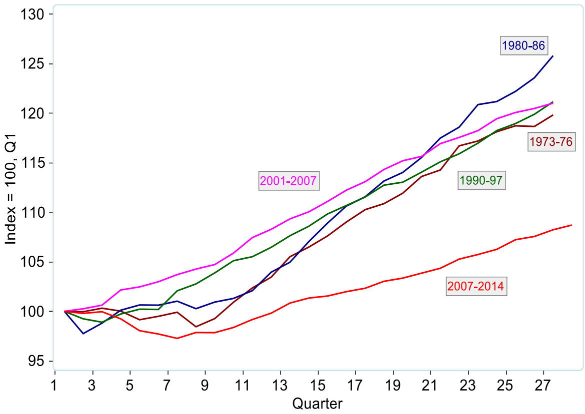
Source: Swedish growth barometer & Macrobond

US: Back on track



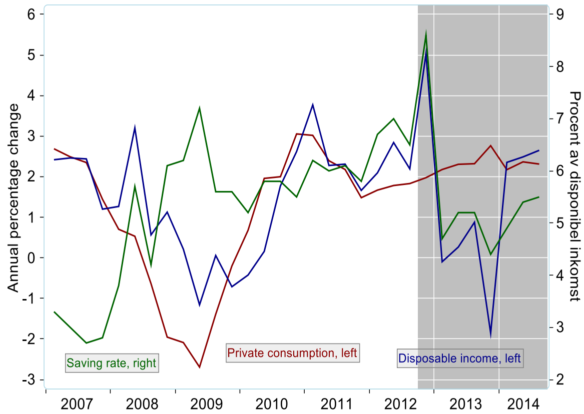
Source: Swedish growth barometer & Macrobond

US: Sputtering consumption engine



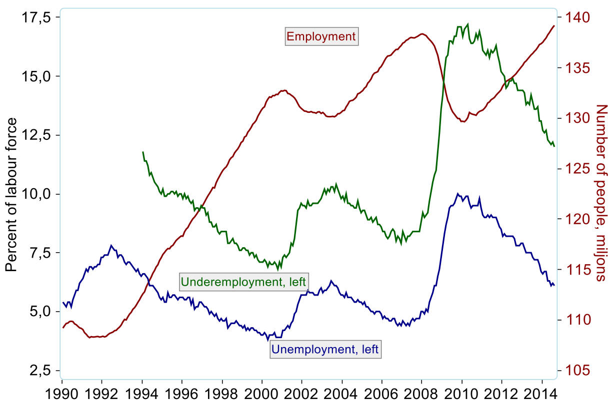
Source: Swedish growth barometer & Macrobond

US: Saving rate key to consumption



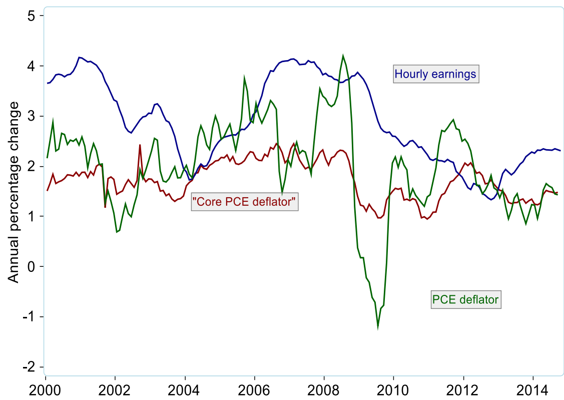
Source: Swedish growth barometer & Macrobond

US: Labour market healing slowly



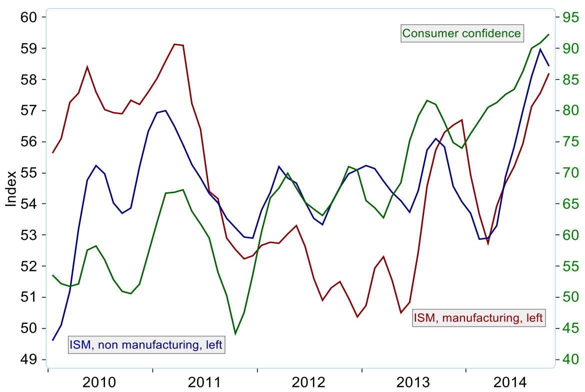
Source: Swedish growth barometer & Macrobond

US: Weak signs of inflation



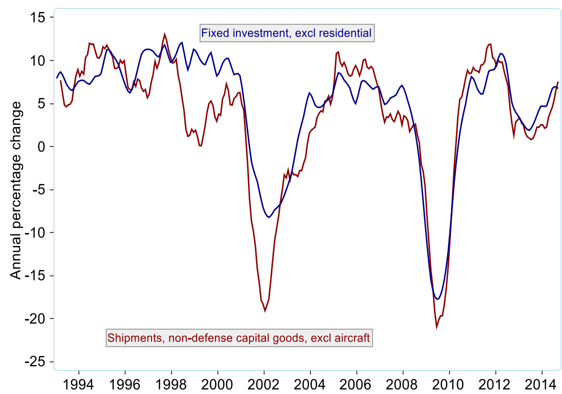
Source: Swedish growth barometer & Macrobond

US: Spiking barometers



Source: Swedish growth barometer & Macrobond

US: Investment set to rebound

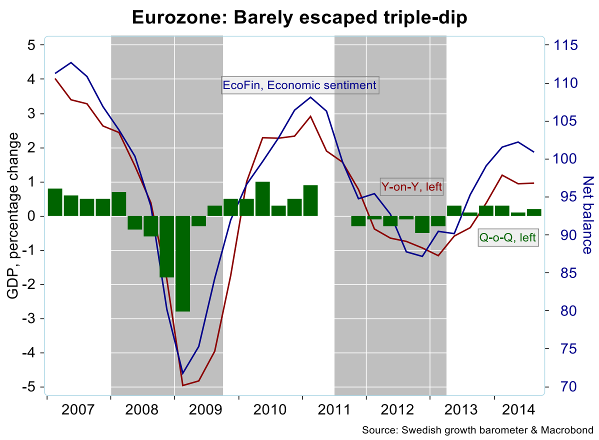


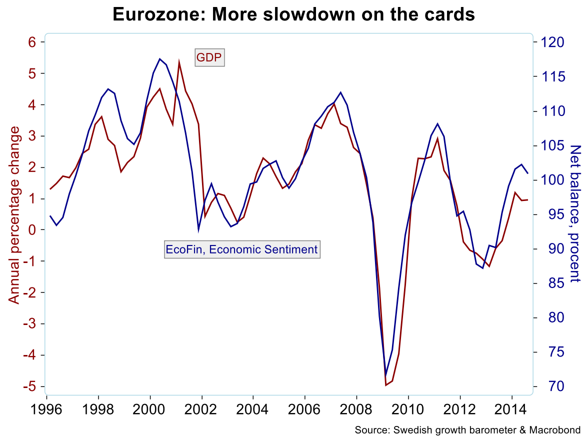
Source: Swedish growth barometer & Macrobond

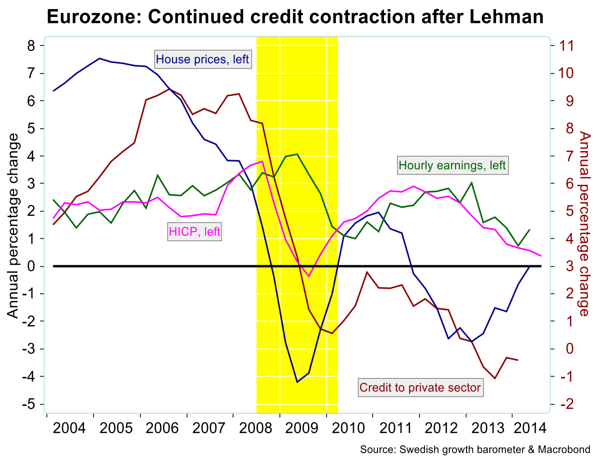
The Eurozone: Barely escaped triple-dip

In 2013 we saw some early signs of a sustainable recovery in the Eurozone but recently economic activity has cooled again and in Q2 the economy barely escaped a third recession since the financial crisis in 2008-2010. Adding to the worrisome developments in the southern parts of Europe are clear indications of weakness in Germany, the former powerhouse. German GDP declined in Q1 and expanded by a meager 0.1 percent in Q2. Among the other large economies Italy's GDP has declined for four of the last five quarters while France bounced back modestly after a sequence of very weak figures. Compared with the situation a couple of years ago, it's the other way around: Economies that show some signs of life are the former crisis-struck countries like Greece, Ireland and Spain, which should come as no big surprise considering how deep they fell in the midst of the crisis.

Leading indicators like the Commissions Economic Sentiment Survey signal further slowdown in Germany and outright contraction in France and Italy, while the improvement has lost momentum for instance in Greece and Spain. We only expect GDP growth of 0.8 and 0.9 percent for 2014 and 2015.







Weak economic activity combined with fading price and wage increases have created significant deflation fears in the Eurozone, not least within the ECB. Inflation has trended down for the last three years while wages have started to decelerate significantly more recently. Meanwhile, credit growth has been negative the last year. As we predicted already in our April forecast, the ECB was forced to cut the policy rate and take extraordinary steps during the summer in efforts to fend off a Japanese deflation scenario. It remains to be seen whether the last word has been said from the ECB or whether more measures are to be expected.

Japan: Abenomics has much to prove

As we concluded already in April, Abenomics is hardly enough for us to become significantly more optimistic regarding Japan's long-term growth potential: Abenomics is mainly a package of monetary and fiscal measures and the relatively minor structural measures are not planned to be implemented until later.

Hence, for the time being it's a matter of monetary and fiscal policy measures that, in addition, to a large extent go in opposite directions. The initial heavy monetization had some positive short-term effects in terms of a stock market rally and rising barometers. However, the positive momentum was broken and GDP plummeted in the wake of the VAT. hike during spring. Admittedly, inflation has risen significantly above the zero line but nominal wages are lagging. Hence, the concrete effect is that inflation has eroded real wages and pulled the rug from under consumers, pushing Japan into the fourth recession since 2008. In sum, there is no reason to substantially change our gloomy view of Japanese GDP for the coming years.

The UK ”a shooting star”

The UK continues to deliver relatively high growth rates, in particular compared with its cousins on the European continent, and leading indicators suggest continued acceleration. Worth noticing is that real estate prices continue to accelerate and are now increasing by a double-digit rate. As in countries like Sweden and the US, house prices are an important factor for households. GDP growth has exceeded three percent during H1 and we expect at least the same rate of expansion for the rest of the year.

The growth cluster is cracking

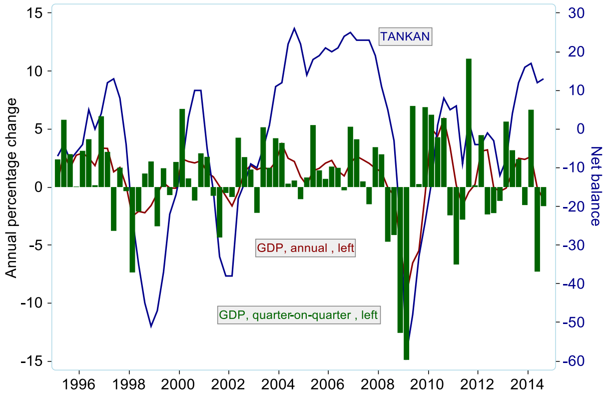
The group of emerging economies is cracking into fast growing economies and laggards. The rift is also widening within the broader BRICST-group that includes Brazil, Russia, India, China, South Africa and Turkey. Add Argentina, which is in the middle of a deep crisis, and it becomes strikingly clear that it's irrelevant to speak of a coherent cluster of emerging markets.

In an even broader perspective it is primarily Asian countries that have been able to defend their positions while emerging economies in other parts of the world have run into different kinds of problems. There are certainly reasonable explanations in each case – political turbulence in Brazil, Argentina's debt problem, Russia's external conflicts – but these problems are seldom a coincidence but rather symptoms of underlying tensions that can be expected to negatively affect the growth potential ahead.

China steams ahead – but at a slowing rate

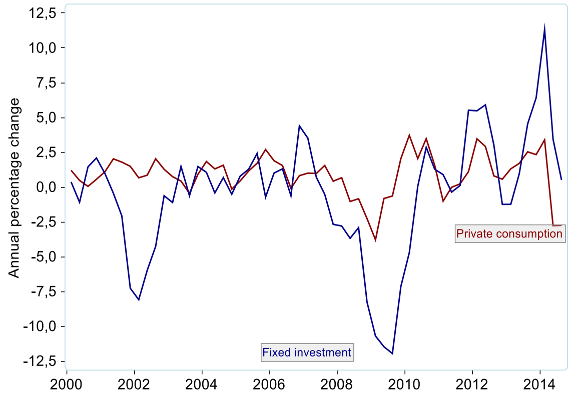
The by far largest of emerging economies China, is still expanding strongly, although growth rates are significantly lower than a few years ago. Moreover, money and credit has slowed down recently, boding for weaker consumption growth ahead, while barometers are stuck at substantially lower levels than in previous years. Thus far GDP has expanded just below 7.5 percent compared with the same period 2013. Considering recent relatively weak data for Q3, we stick with our forecasts of 7.2 and 6.9 percent GDP growth for 2014-2015.

Japan loses steam again



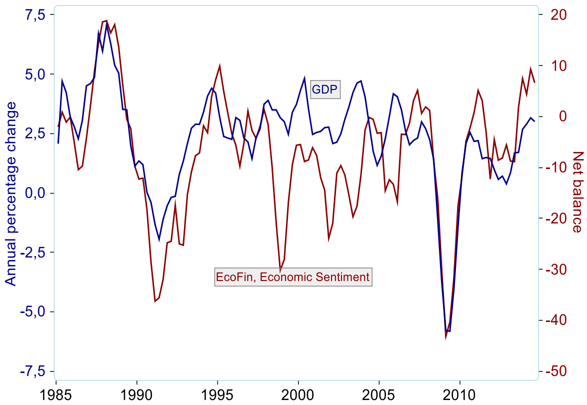
Source: Swedish growth barometer & Macrobond

Japan: Roller-coaster-ride continues with Abenomics



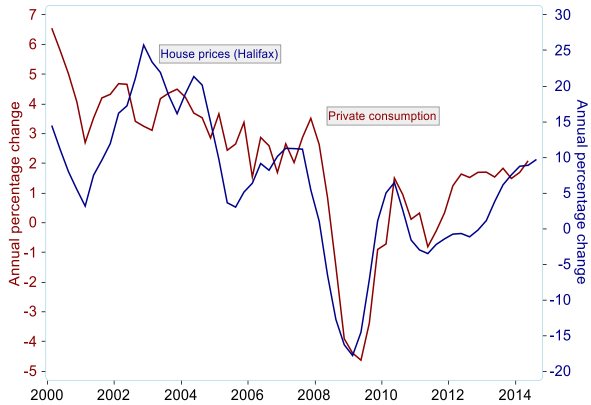
Source: Swedish growth barometer & Macrobond

UK: Barometers signal strong growth



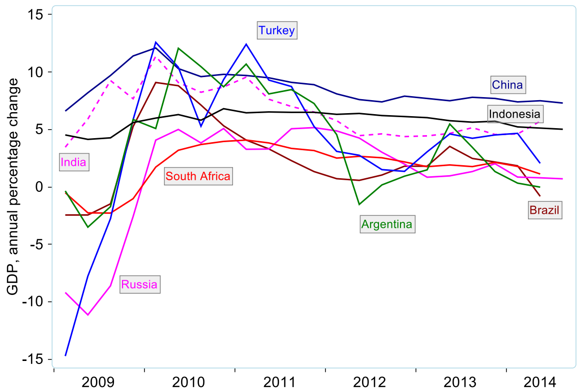
Source: Swedish growth barometer & Macrobond

UK: House inflation spurs consumption



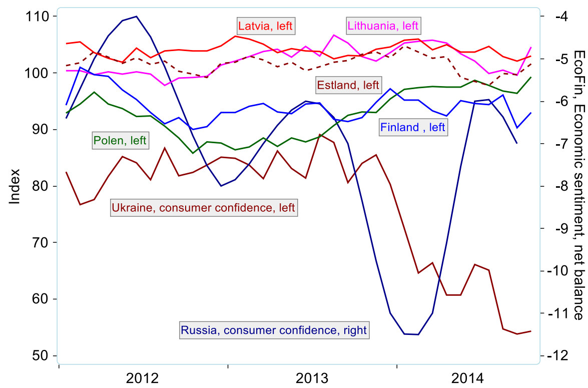
Source: Swedish growth barometer & Macrobond

Cracking emerging market cluster



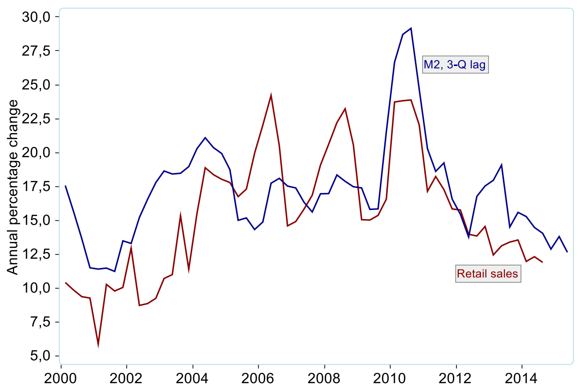
Source: Swedish growth barometer & Macrobond

Ukraine crisis: Varying impact om sentiment



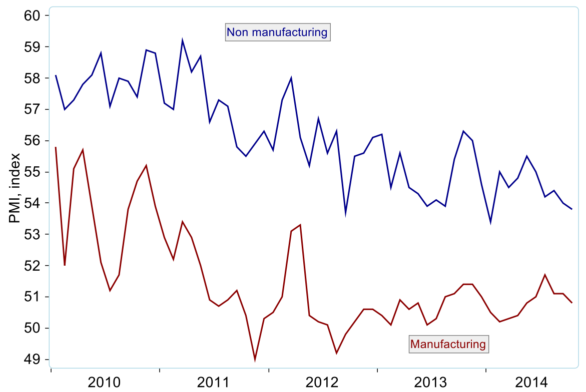
Source: Swedish growth barometer & Macrobond

China: Fading credit growth hampers consumption



Source: Swedish growth barometer & Macrobond

China: Barometers moving sideways



Source: Swedish growth barometer & Macrobond

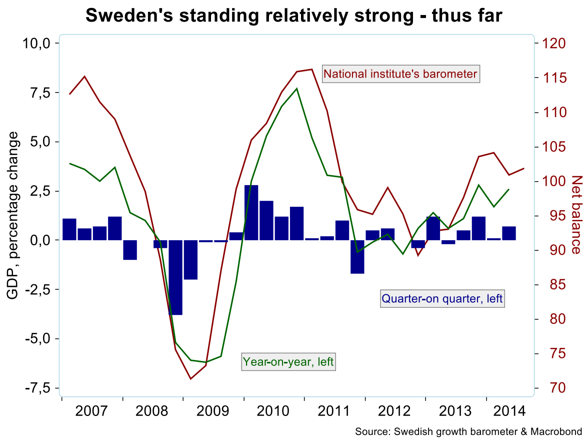
Sweden: Relatively strong in a turbulent surrounding

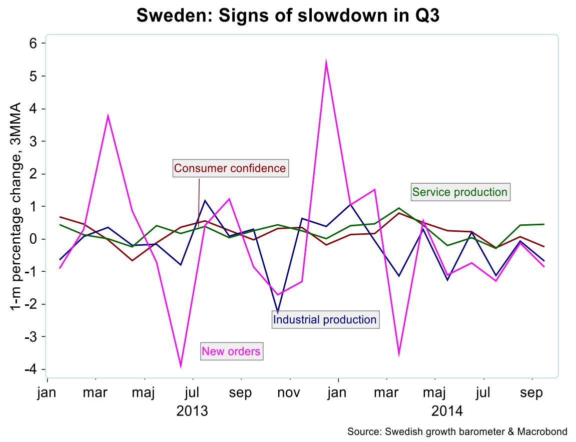
The Swedish economy started 2014 on a strong note after a promising ending of 2013, expanding 2.2 percent in H2 compared to the previous year. During summer and early fall, however, weakening barometers and softer data on production, new orders and consumption unanimously have pointed to a slowdown.

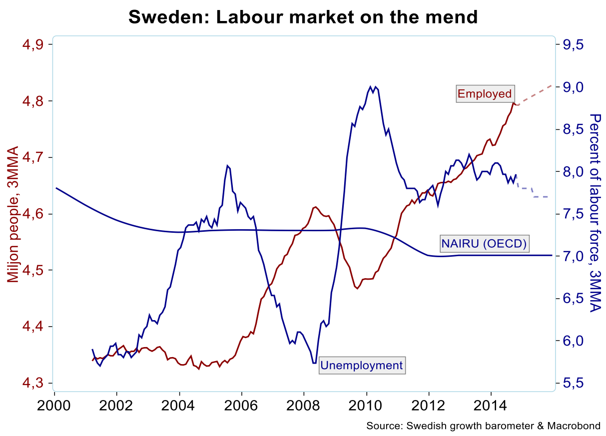
We expect GDP to grow by 2.1 percent and 2.2 percent 2014-2015. Despite a historically mediocre performance and downward forecast revisions, the pattern of Sweden outperforming most of our peers remains, in particular those on the European continent.

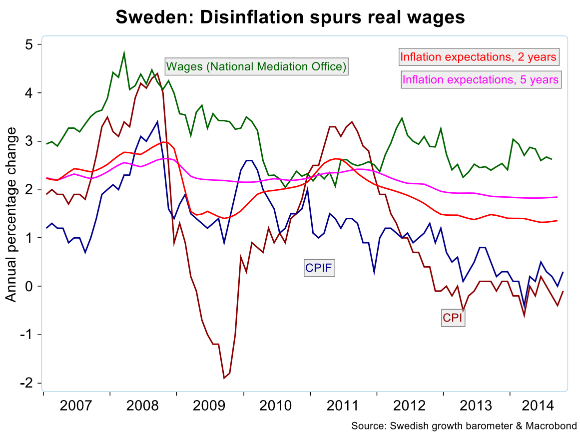
Continued modest economic growth suggests that the labor market stays on its course of gradual improvement. We expect employment growth to slow down the next couple of years but we are still talking about an increase by the order of 50000 people, while the unemployment rate continues its slow decline.

Inflation continues to buck round the zero line which has triggered deflation fears also in Sweden and provoked the Riksbank to take unconventional measures. Risks of a negative Swedish deflation spiral are, however, small especially compared with the Eurozone. Unemployment declines, resource utilization increases slowly, while nominal wages chug along in a steady pace of 2.5-3 percent. Inflation expectations have certainly slid a bit the last few years but they seem to level out safely above the zero line. Since the main effect has been to spur real wages, the last years' surprisingly low inflation has rather given a boost to the economy.





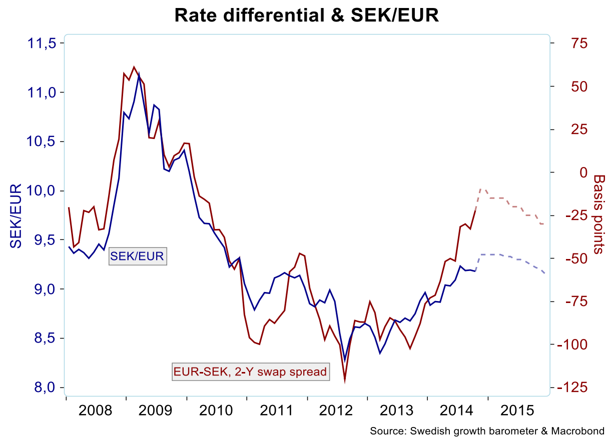


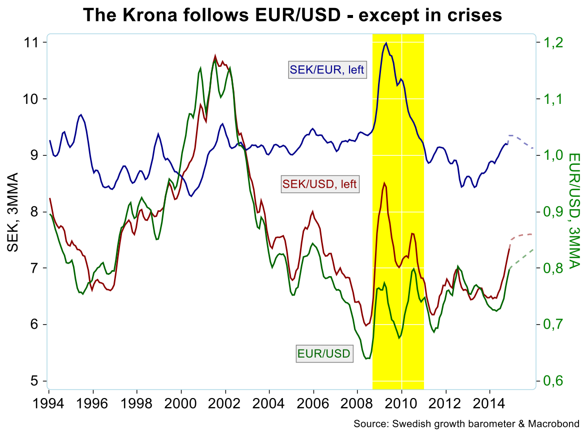


Financial forecasts

We expect the Federal Reserve to gradually hike the fed funds rate to 1.5 percent until the end of 2015, with the first increase next spring. Meanwhile, the ECB and the Riksbank will most likely not touch their policy rates for the foreseeable future. After all, the Riskbank recently took the historical step to lower the repo rate to zero and signaled continued zero-rate policy into early 2016.

Although not our main scenario, there's a risk that the Riksbank's late-cycle stimulus will trigger a rapid inflations boost, which would force a swift policy retreat. A more likely scenario is, however, for the inflation rate to creep upwards. Hence, there's no reason to forecast an earlier-than-signaled policy change by the Riksbank. Still, we do attach a relatively high probability to the scenario with a first Riksbank hike already in H2 2015. The ECB will most likely not move the refi rate for several years and more extraordinary measures cannot be excluded.





We don't expect any large, near term swings in interest rate spreads since the Riksbank and the ECB are very similar in their monetary stance and rhetoric. During the course of 2015, however, it should become obvious that the Riksbank soon will have to tighten policy, suggesting a widening of the spread vs the Eurozone.

In normal circumstances the Swedish krona tends to follow the euro versus the USD and we don't expect new crises, although we cannot rule them out. Hence, we expect a significant depreciation of the krona versus the USD and some short-term depreciation versus EUR. Furthermore, a modest appreciation versus EUR is not likely until late of 2015 or early 2016 in connection with increasing expectations of a looming Riksbank tightening.

Table 1. Key ratios

Year	US	EMU	China	Global	Sverige			
	GDP	GDP	GDP	GDP	GDP	Unemp-ployment	Employ-ment	CPI
2014	2.3	0.8	7.2	2.8	2.1	7.9	1.7	0.2
2015	2.8	0.9	6.9	3.0	2.2	7.7	1.1	1.1

Table 2. Financial key ratios

År	Fed	ECB	Riksbank	SEK/EUR	USD/EUR	SEK/USD	Sweden 10 Y	US 10 Y	Germany 10 Y
2014	0.125	0.05	0.00	9.35	1.26	7.50	1.25	2.50	1.00
2015	1.50	0.05	0.00	9.15	1.20	7.60	1.75	3.20	1.50

Thematic study: When the world citizen becomes middle class

Even though the global economy has entered a period of slower growth, the average global citizen will become considerably richer in the coming decades. As income increases, consumption patterns change. In essence, a comparatively smaller share of consumer spending goes to the necessities of life while the share spent on services such as healthcare, leisure and financial services increases. The consumption of capital goods is more constant in relative terms and thus grows with the pace of the economy in general. The focus of this analysis is how consumption patterns will change as the global citizen turns middle class.

In this report[2] we analyze a scenario for how consumption patterns in China and India could evolve to 2030. In this period the average Chinese consumer will advance in income from a level comparative to the US in 1951 to a level equal to western standards in the late 1980's. In other words, a very fast journey (even with modest growth assumptions) for a very large population. India, too, will experience a significant increase in income, but from a much lower level. Today's average Indian income is equal to American incomes in 1933 and will advance to the level Chinese consumers enjoy today (i.e. US 1951) by 2030.

Taking into account the combined populations of these countries, we foresee gigantic growth in markets providing goods to people coming out of poverty and services that are in demand at middle class income levels. However, the scenario shows interesting differences between China and India. In India the share of goods relative to services will increase: investments in capital goods accelerate as people emerge out of poverty, acquiring furniture, appliances and vehicles. In China, goods relative to services decrease as income to a larger extent is spent on healthcare, recreation and financial services.

The general growth of the world economy creates ample opportunities for companies in most markets. There are, however, clear differences between the growth prospects of different industries. The strategic implications of this study are:

- **A larger share of consumer spending will be allocated to personal well being, especially in the form of healthcare, but also recreation and eating out.**
- **As income grows, so does wealth, which drives the consumption of financial services and insurance.**
- **A decreasing share will go to necessities such as food, clothing and shoes, and within these segments there will be a movement from "basic" to "luxury". Meat instead of potatoes and designer brands instead of generic will appeal to future consumers.**

A critical challenge of our scenario is that the increase in consumption carries with it a risk of rapidly rising resource depletion and emissions. In order to tackle climate change this needs to be addressed. Price signals will have an effect: as resources become scarcer while demand increases, the price of capital goods is likely to increase. A plausible strategy is offering goods as services, where consumers rent and co-utilize rather than own goods. Businesses that are able to develop such business models are well positioned for the future.

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[2] Available in a Swedish unabridged version at http://tillvaxtbaromtern.se/publikationer. The study was carried out by Mats Kinnwall.

Global slow-down but rapid increase in incomes

We have in an earlier report argued that weak economic growth only partially can be attributed to the Great Recession and that more long-term, structural factors also dampen the recovery. Slower productivity growth and an increasingly less favorable demographic context are the main culprits for a protracted global slow-down.

Slower GDP growth will not detract from a generally positive outlook on a global level, however. The average income of a global citizen will continue to rise relatively fast the coming decades, even with modest growth assumptions.

By 2013 the average income globally was approximately at the average level in the US 1960. We have outlined three scenarios for global GDP development to 2030. In the optimistic scenario the global average income rises at the same pace as American incomes, to mid-1970s levels. Even in the least positive scenario, the rise is significant to late-1960s levels. In our main scenario the average global income rises by 50 percent, from 13,000 USD per capita to 19,000 USD per capita.

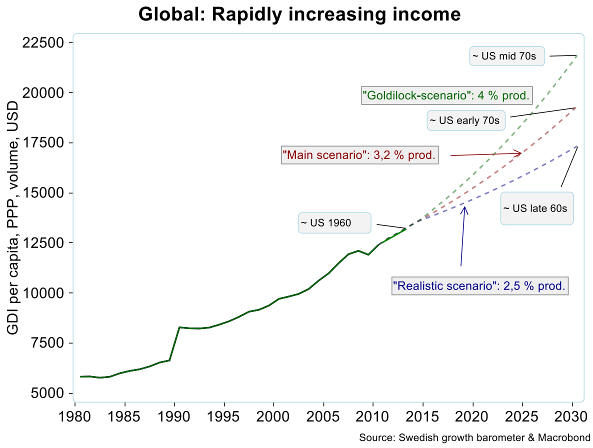
Even with modest growth assumptions the global economy will experience unprecedented growth in absolute numbers in the coming 15 years. GDP in real terms will expand by 70 percent, approximately $ 70 trillion, to 2030. At the same time world population will expand by 1.5 billion people according to UN estimates.

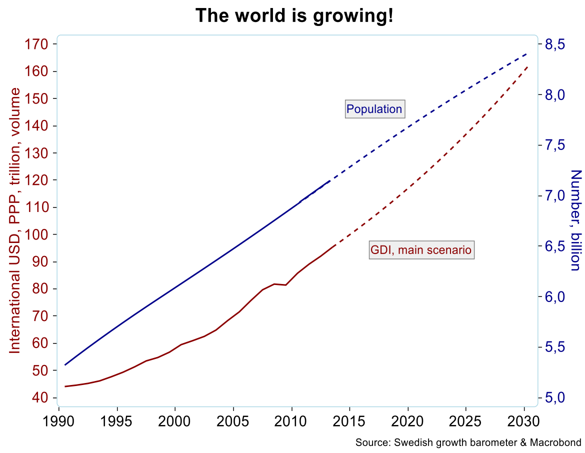
As the world economy expands, countries and regions will differ in their respective growth rates. The rapid growth experienced by giants such as China and India will decline gradually, but it is in these and other growth markets where incomes will grow fastest, at least in relative terms.

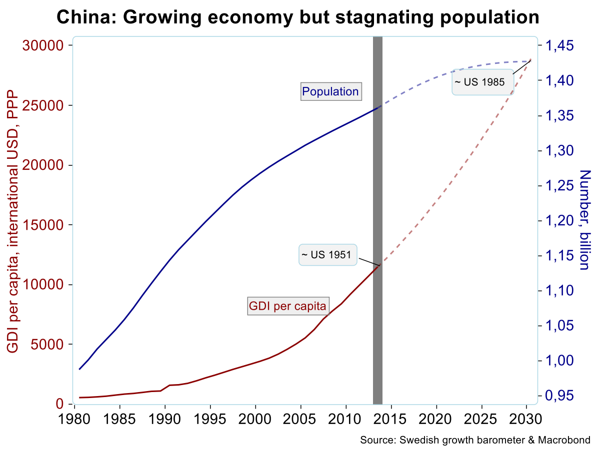
In our scenario for China we take into account a significantly slower growth of the working population as well as a continued decline in productivity rates. We thereby assume that China has passed the most explosive catch-up phase, picked the low-hanging fruits and entered a phase of declining growth potential. Despite this the calculations are optimistic: in Japan the growth potential fell from 10 percent to 2 percent in less than 25 years while we assume a 5 percent growth potential even after 50 years of expansion. In this scenario Chinese average income will increase by 150 percent to $ 29,000 by 2030. In US terms this is equal to the rise in average incomes between 1951 and 1985.

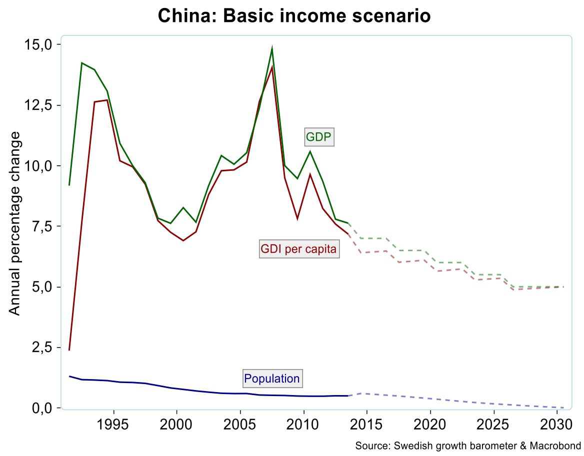
Our assumptions for India are that the peak of the catch-up phase is yet to come, but that the economy will not reach the same levels as in China during the most explosive period. On the other hand, the working population is still growing at a strong rate. This means that average incomes will double to $ 12,000 by 2030. However, this is far below OECD levels now and in parity with the US in the early 1950s. It is possible that our assumptions underestimate Indian future growth potential. With an assumption of a growth rate of 7 percent incomes would rise to $ 14,000, equating to US levels in the mid-1960s. The implication is that India needs considerably higher growth rates to come close to Chinese levels today. Despite this, the Indian economy will be among the largest in the world by 2030.

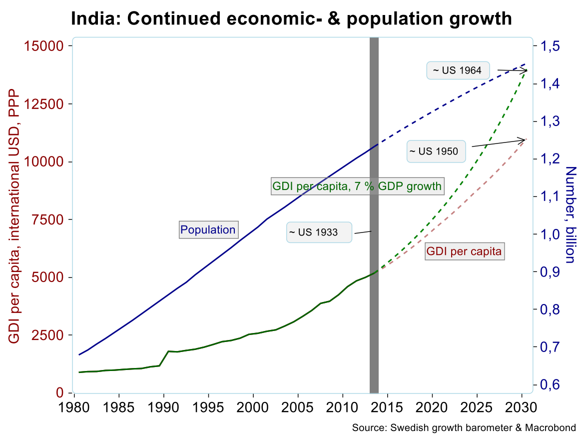
In essence, though emerging markets will experience faster growth, income disparities will remain and even increase in absolute numbers. Our scenarios indicate that while average Indian incomes will rise by $6,000 to 2030, American incomes will rise by $19,000. Thus, despite assumptions of more than twice as rapid growth rates in China and India the average American will still be twice as rich as the average Chinese and six times as rich as the average Indian. Other developed economies, such as Japan and Germany, have a demographic future less amenable to growth but will remain considerably wealthier than China and India.

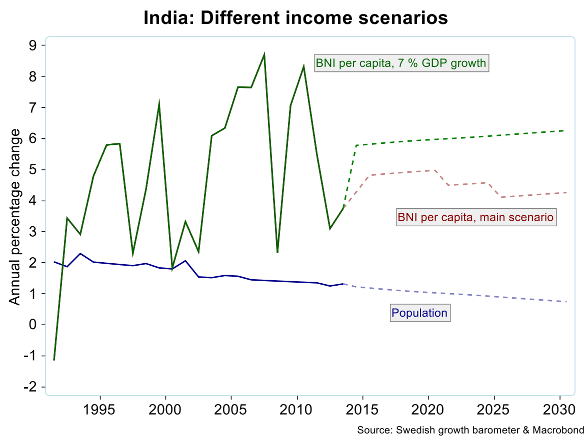

Global: Rapidly increasing income
GDI per capita, PPP, volume, USD
~ US mid 70s
"Goldilock-scenario": 4 % prod.
~ US early 70s
"Main scenario": 3,2 % prod.
~ US 1960
~ US late 60s
"Realistic scenario": 2,5 % prod.
Source: Swedish growth barometer & Macrobond


The world is growing!
International USD, PPP, trillion, volume
Number, billion
Population
GDI, main scenario
Source: Swedish growth barometer & Macrobond


China: Growing economy but stagnating population
GDI per capita, international USD, PPP
Number, billion
Population
~ US 1985
~ US 1951
GDI per capita
Source: Swedish growth barometer & Macrobond


China: Basic income scenario
Annual percentage change
GDP
GDI per capita
Population
Source: Swedish growth barometer & Macrobond


India: Continued economic- & population growth
GDI per capita, international USD, PPP
Number, billion
~ US 1964
~ US 1950
GDI per capita, 7 % GDP growth
Population
~ US 1933
GDI per capita
Source: Swedish growth barometer & Macrobond


India: Different income scenarios
Annual percentage change
BNI per capita, 7 % GDP growth
BNI per capita, main scenario
Population
Source: Swedish growth barometer & Macrobond

How income shifts consumption patterns: the US case

In relative terms the poorer nations will experience the fastest growth rates in the coming years. This development will have radical consequences for consumption patterns. In this section we outline plausible implications, using the US as a role model. The detailed historic data available from the US makes it the only plausible model for consumption patterns at the relevant income levels. However, a limitation of the scenario is of course how technologies have evolved and entered consumers' wallets. Other limitations are differences in structural and cultural factors. Nevertheless, at the category levels we are concerned with here we believe that the scenario is a sufficient basis for a qualified discussion of evolving consumption patterns.

The first observation we can make studying the effects of rising incomes is the relative balance of consumption and private investments is more or less constant across different income levels. What does change, and quite significantly, are changes in households' consumption pattern over time. Specifically, the service share of GDP has risen from approximately 25 percent to approximately 45 percent from the late 1940s to the present, while the goods share has fallen from 40 percent to 22 percent over the same period. In this timeframe, US GDP per capita increased from $15,000 to $50,000.

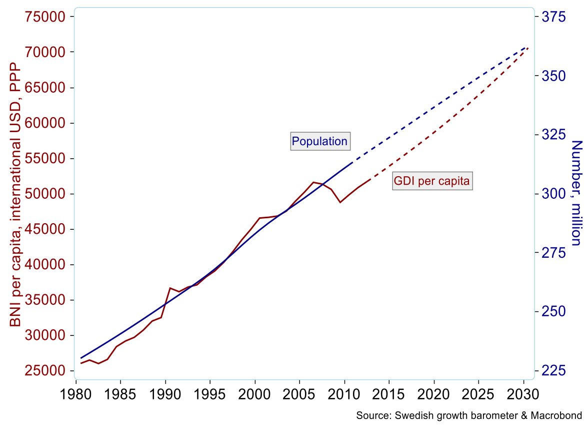
Note that the service share of GDP grew fastest as incomes rose from $10,000 to $40,000 and subsequently at a slower rate. This means that the service share only increased marginally since the early 1990s. The share of goods fell at its fastest rate as incomes increased from $10,000 to $15,000. Thus, the share of goods has been relatively stable over the last 30 years.

This pattern is confirmed by considering more fine-grained data. The consumption of foodstuff as a share of GDP has decreased from 15-20 percent during the 1930s to only 5 percent today. In other words, as incomes increase the share that goes to the necessities of life decreases. But the rate of decrease slows down as incomes rise and has been stable since the early 1980s, as incomes reached $20,000. This could be an indication that households replace "spam with tenderloin", i.e. shifting preferences to more luxurious goods. On the other hand, there is a lack of correlation between the spending on capital goods and income, where the share has been quite constant and has fluctuated with business cycles and other factors, such as oil prices.

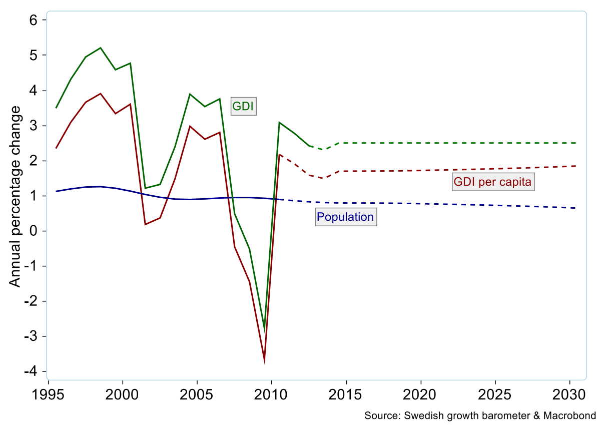
Which categories in the consumption basket have increased as the necessities of life become less prominent? The data clearly shows that the increasing spending on services is driven by financial services, recreation and, most prominently, healthcare. During the 1940s only 1 percent of GDP was spent on the consumption of healthcare, rising to approximately 12 percent presently. If we compare this to Sweden[3], healthcare equates to approximately 8 percent of GDP, which is similar to the American pattern at the corresponding level of income. And even if healthcare is financed through taxation (as in many countries) the rise in spending has effects on the private market. In Sweden, county councils' purchases from private operators increased by 30 percent between 2002 and 2012, to 30 billion SEK or 13 percent of total budgets.

[3] In Sweden most healthcare falls into the category of public consumption. Private consumption amounts only to 1.5 percent of GDP.

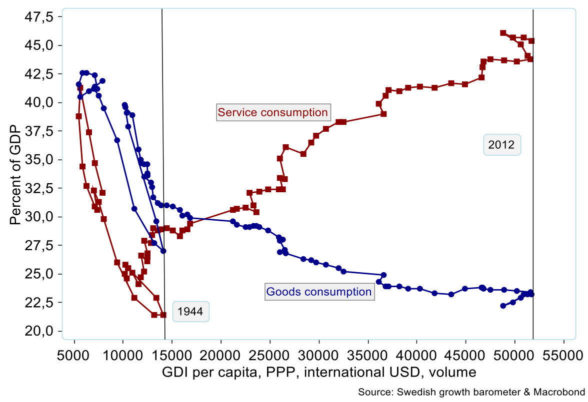
US: GDP and population



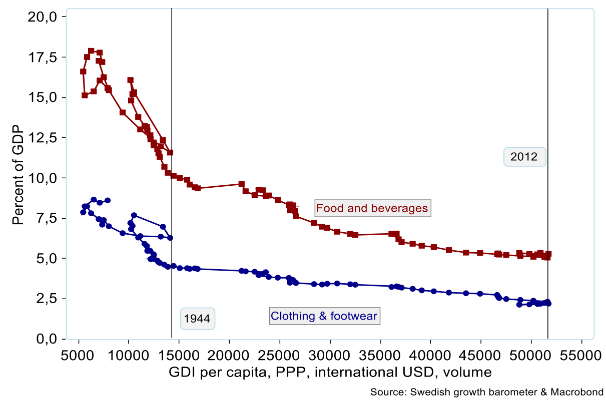
US: Basic income scenario



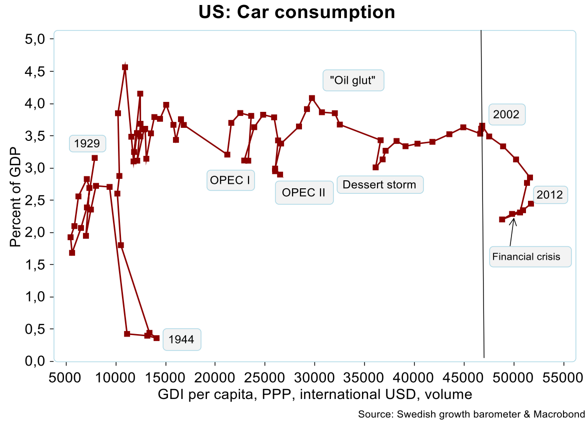
US: Service share increases with income



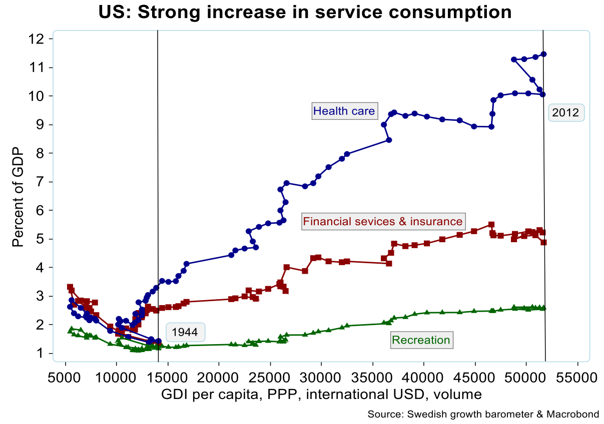
US: Declining share of basic goods as income increases



US: Car consumption



US: Strong increase in service consumption

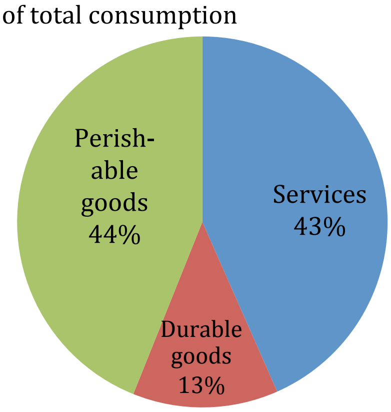


From basic necessities to nursing

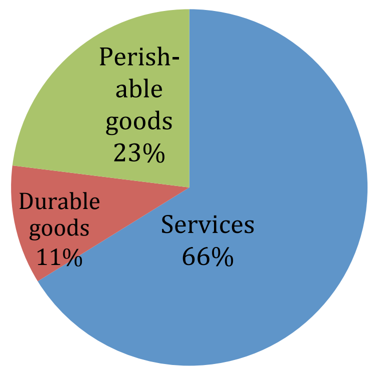
So far we have focused on consumption shares in relation to GDP. In the following we address the distribution of goods and services in the consumption basket. As the level of consumption to GDP has been fairly constant, the same pattern of an increasing share of services is evident. The share of perishable goods to total consumption has decreased from 44 percent in 1929 to 23 percent in 2012, while services has increased from 43 percent to 66 percent. However, the share of durable goods has been more or less constant.

A more fine grained analysis of this development shows that the share of spending for particularly food and beverages as well as clothing and shoes has decreased, from 21 and 12 percent respectively in 1929 to 8 and 3 percent in 2012. During the same period, spending on healthcare increased from 3 percent to 17 percent of total consumption. The spending on financial services, insurance and recreation has increased from 6 percent in total to 11 percent. Other categories have been more or less constant.

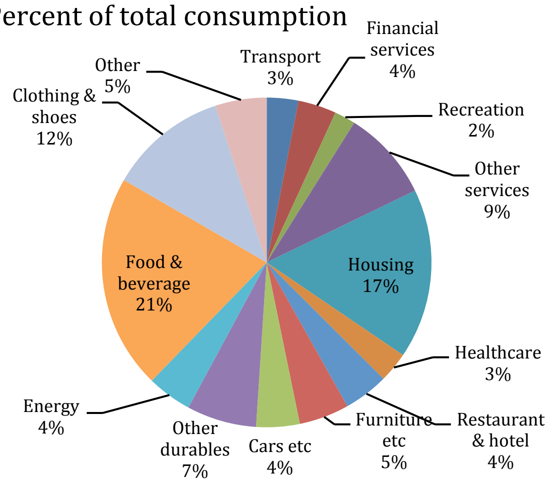
Consumption pattern 1929
Percent of total consumption



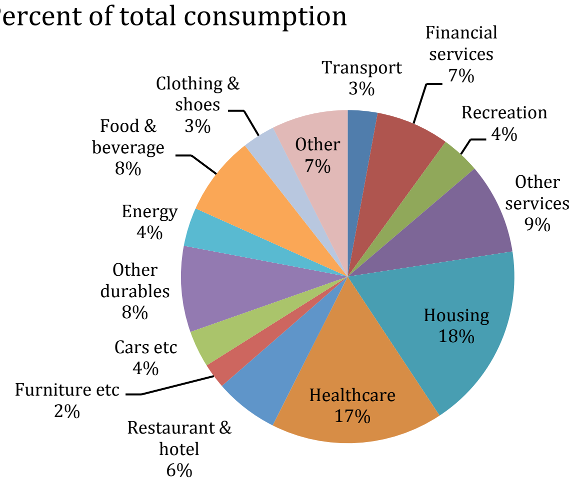
Consumption pattern 2012
Percent of total consumption



Consumption pattern 1929
Percent of total consumption



Consumption pattern 2012
Percent of total consumption

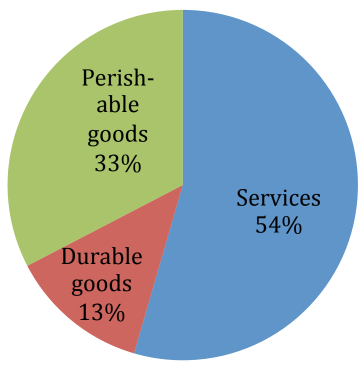


Shifts in consumption occur at threshold levels

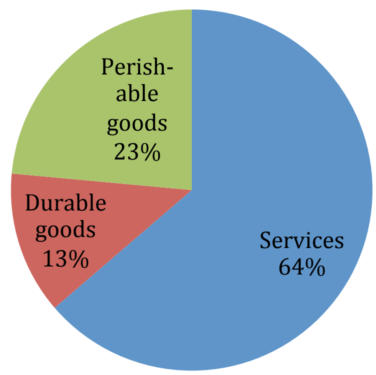
The development has not been linear, however. The fastest pace of change occurred during the 1980s and 1990s, having been more stable earlier in the period. The relation between goods and services as well as between individual categories did not alter significantly between 1929 and the 1960s, although the average income rose by more than 60 percent. Between 1980 and 1996, as the average income rose from $27,000 to $36,000, consumption patterns changed radically. For example, spending shifted by more than 10 percentage points from perishable goods to services during these 16 years. Finally, looking at the period between 1996 and 2012, when the average income rose by $15,000 or 44 percent, the change has been more modest even though the overall trend has continued.

This analysis reveals that the largest change in consumption patterns have taken place at relatively high income levels. The obvious interpretation is that households first satisfy basic needs and only then spend money on services, and that financial services require wealth and assets to manage. However, the non-linearity of these changes has relevant implications for how future consumption patterns may evolve in China and India in the coming years.

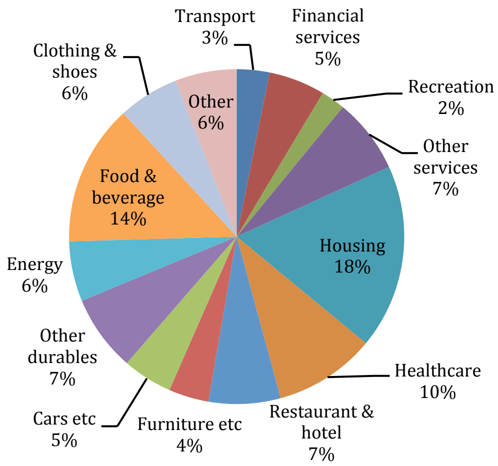
Consumption patterns 1980
Percent of total consumption



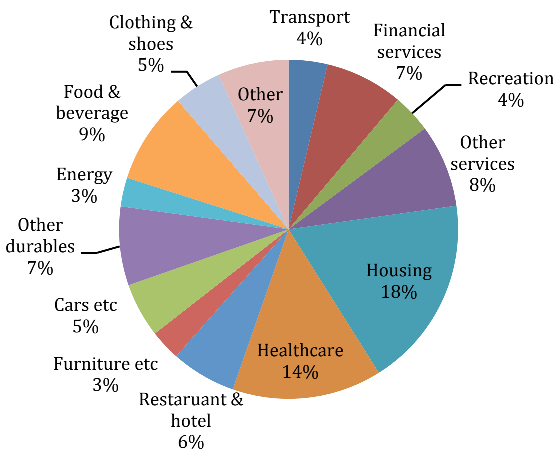
Consumption patterns 1996
Percent of total consumption



Consumption patterns 1980
Percent of total consumption



Consumption patterns 1996
Percent of total consumption



China and India: large differences in future consumption

What are plausible future consumption patterns for the world's two most populous nations? The following section outlines a scenario where we use the earlier mentioned GDP and population projections and compare them with American consumption patterns.

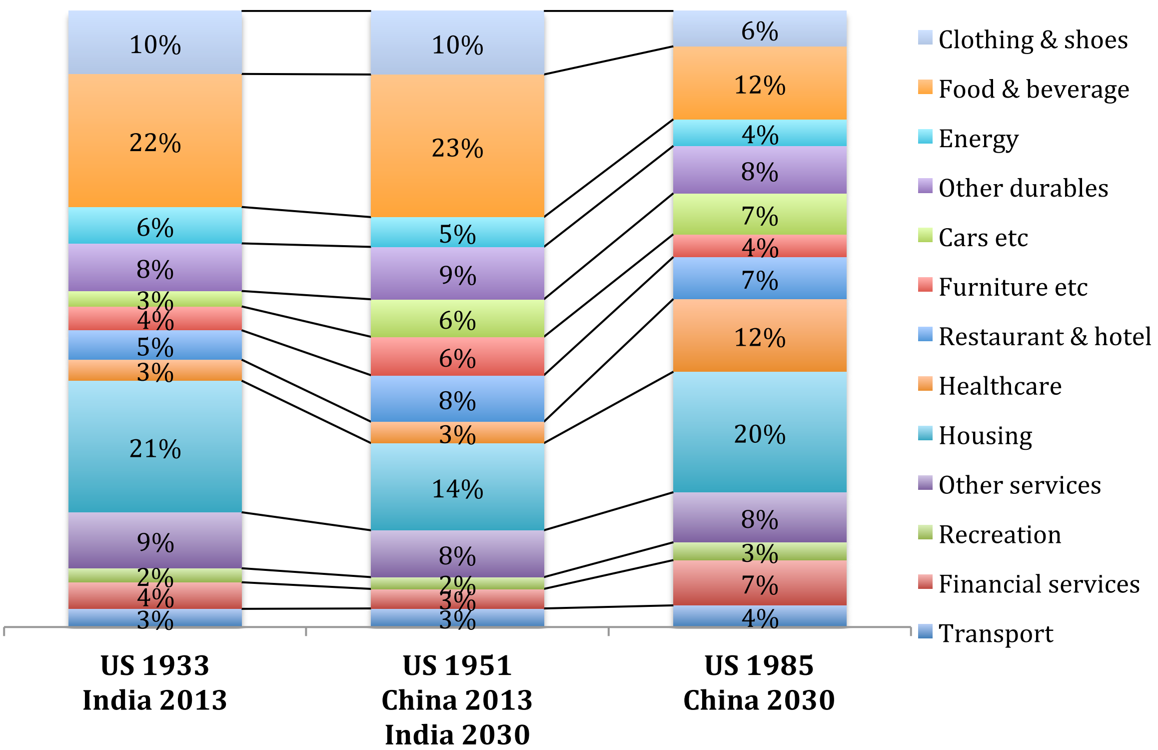
Today, the average Indian income is approximately equal to US average income in 1933. Note that in 1933 the US was in the midst of a deep depression, which presumably had an effect on the spending on e.g. durable goods, as confidence levels were extremely low. It is thus not surprising that consumption of durable goods and cars rose as confidence returned, particularly after the Second World War. We expect a similar pattern for consumption in India as more people move out of poverty and invest in productivity enhancing goods.

In China, we expect radically different consumption development. As the average income in China, today at US levels of 1951, approaches that in the US in the mid-1980s, the share of consumption composed of the basic necessities of life will decrease while recreation, financial services and healthcare will expand.

However, it is critical to keep in mind that even though the relative shares change, in absolute terms virtually all goods- and service markets are growing. This is a consequence of the rapidly rising incomes and population growth.

Changing consumption patterns in China and India

Percent of total consumption



Implications for companies

The world's economy will be much larger in 2030 than it is today, despite lower growth rates. This will provide ample opportunities for companies to expand in virtually all markets. However, some industries will have better conditions for growth than others. In our scenario there are some clear strategic implications for international companies:

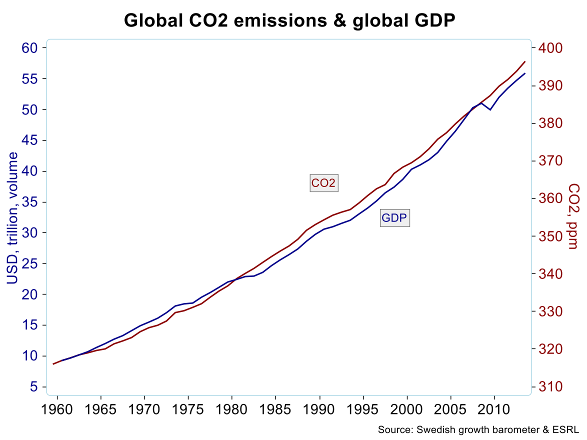
1) Rising purchasing power means that basic goods will not be among the strongest growing sectors. Instead, the rapidly expanding middle class will spend relatively less of their incomes on the basic necessities of life. This is especially true in China, which indicates that there will also be a tendency to shifting preferences within categories. Thus companies catering to higher value perishable goods are likely winners.
2) The demand for capital goods will increase at pace or faster than incomes,. This is a consequence of investment priorities that value personal productivity and comfort. As a result, the market for cars and household appliances will continue to expand rapidly in the future.
3) Exceptional growth can be expected in service industries. The demand for financial services and insurance will increase dramatically as a swelling middle class needs to manage their rising wealth. Markets that cater to leisure, such as the hospitality industry, will also likely grow rapidly. However, the probable difference between India and China is large: the larger shift will occur at higher income levels, and then particularly in the healthcare sector. The market for healthcare stands out as the largest growth opportunity, as it coincides with population growth and an aging population.

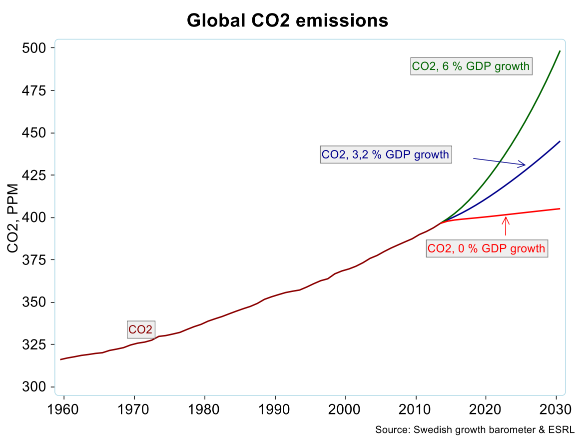
Finally, the shift to services is not only a question of shifting preferences but also of how business models evolve. Therefore it is likely that we will see significantly more business models where goods are offered as services. Companies that are able to innovate in that direction are well positioned for the future – not least due to the challenges in terms of resource use and emissions that consumption growth carries with it.

The challenges of growth

A growing world economy is fundamentally good news since it will mean rising standards of living and a continuation of the massive and rapid poverty reduction in developing countries. However, growth will carry with it challenges in terms of sustainability.

The correlation between global GDP and CO_2 emissions historically is very strong. If this correlation is not somehow tackled, the world will experience a continuance of rapidly rising emissions. In our main scenario, the concentration of CO_2 in earth's atmosphere will increase by 10 percent, to approximately 450 ppm.





It is a plausible assumption that technology and policy will drive a wedge between economic growth and emissions, but it is hard to imagine short-term solutions where world economic growth does not lead to more emissions. And that is just one challenge: another is that consumption drives the use of many natural resources.

Sustainable growth will require a more efficient use of capital goods, while rising incomes will lead to an increase in demand of those goods. These factors together are fertile ground for business models where consumers to a greater extent share ownership through subscriptions or rentals, as in the case of car pools. That would result in a slower growth in the production of capital goods as compared to consumption growth. Companies and industries that transform to such a logic are not only winners in our scenario, but also contribute to the solution of the perhaps greatest challenge of our times.