Issue 10

ECONOMIC SCENARIOS

Essential Economic Analysis for Strategic Thinkers



Key points

- The deteriorating US current account since 1990 is due to several causes:
 - initially, better investment opportunities in the US;
 - more recently high US fiscal deficits;
 - falling US personal savings rate;
 - low investment in Asia; and
 - slow growth in Europe.
- Reining in the US fiscal deficit has the greatest impact on reducing the US current account deficit:
 - but even a scenario double the President's plan only reduces the deficit 1.3 per cent from baseline.
- Large current account deficits will remain.
- Thus the US dollar should remain weak.

ECONOMIC SCENARIOS

A joint product of the Centre for International Economics and McKibbin Software Group Pty Limited www.economicscenarios.com

AUTHORS

Professor Warwick McKibbin, wmckibbin@economicscenarios.com Dr Andrew Stoeckel astoeckel@economicscenarios.com

SUBSCRIPTIONS abieler@economicscenarios.com





The OECD projects the US current account to be in deficit by US\$826 billion by 2006.¹ In 1990 the US current account was in surplus. This deterioration in the current account of the United States and accompanying deterioration in the trade balance is unprecedented. It is 'large absolutely, large relative to US GDP and large relative to the United States' small export base'.² Financial markets are worried about how and when this imbalance in the world economy will resolve itself. In this issue we examine the main causes of this growing imbalance in the world economy, its sustainability and implications for major variables like real exchange rates and interest rates as the imbalance corrects itself, which it must do at some point.

Many researchers claim the growth in the United States' current account deficit is unsustainable over the medium term. Obstfeld and Rogoff3 point to a trade-weighted dollar fall of 40 per cent or more if there is an overshoot of the exchange rate as the reversal in trends occurs. Large changes like these have widespread repercussions for financial markets. One of the dangers in commentary on global imbalances like the US current account is that there is no single cause of the imbalance and therefore no single cure either. There are several ways this issue could resolve itself with different outcomes for world markets.

Causes of the US current account decline

The decline of the United States current account from a small surplus in 1990 to the OECD's projected deficit of US\$826 billion in 2006 is shown on chart 1. In 1990 the US was in a slump and investment was low. The economy recovered from 1991 onwards with the dot com investment boom. This investment boom coincided with an investment slump in Japan that has largely continued to this day. Then, in 1997, the Asian financial crisis struck and led to a large loss on investor confidence in

© 2005 Economic Scenarios.com Pty Ltd. All rights reserved.

This work is copyright. Selected passages, tables or diagrams may be reproduced for media reporting or referencing provided due acknowledgement of the source is made. Major extracts or the entire document may not be reproduced in any form by any process without the written permission of the authors.

¹ OECD 2004, Economic Outlook No. 76, December.

 $^{^2}$ Roubin, N. and Setser, B. 2004, 'The US as a Net Debtor: The Sustainability of the US External Imbalances' November.

³ Obstfeld, M. and Rogoff, K. 2004, analyse the issue in *The Unsustainable US Current Account Position Revisited*, NBER Working Paper 10869, Washington, October.

Using these scenarios

Nobody can foretell the future. If they could, they wouldn't tell you about it. These scenarios are not predictions or forecasts. To make profitable investments from this information you also need to decide how likely the events portrayed here are, and what is already priced in the markets. The value of this material is in the insights it offers into the economic effects of various possible events. Asian economies and other developing countries. The United States became relatively more attractive to investors and so the pace of decline in the current account quickened with the extra capital inflow to the States. There was a brief respite in the decline in current account balance in 2000–01 as the dot com investment boom came to an end. But the ensuing slump encouraged a monetary and fiscal easing. From 2001 onwards there was a growing trend towards large public dis-saving in the United States brought about by a series of growing fiscal deficits. These deficits were due to a weak economy, lower tax rates and increased government spending, especially on the war in Iraq.

Other factors have also played a part in the decline in the United States' current account. Personal savings rates in the United States have trended down strongly since 1991. Since mid-2000 the personal saving rate has averaged 1 per cent (chart 2). Explanations for this low personal rate vary. Common explanators are the 'wealth effect' following the sharp rise in financial wealth of households from the mid-90s onwards, the rise in labour productivity in the latter half of the 1990s, and financial innovation allowing relaxed liquidity constraints on households.⁴ Regardless of the cause, the key point is that the personal saving rate in the United States fell relative to counterparts elsewhere in the world. For example, personal saving rates averaged 13 per cent in Japan, 12 per cent in Germany and 15 per cent in France from 1980 through 2001. In these countries there was no steep decline since 1994 as happened in the United States. Indeed, the personal saving rate went up in France. High savings relative to investment elsewhere in the world with the reverse in the United States has given the global capital flows and current account imbalances observed today.

These developments are summarised in chart 3. It shows the mirror image of the decline in the current account of the United States — other countries or regions have to run commensurate surpluses. OECD

economies comprising mainly Japan, Euro area countries are the largest surplus countries financing half of the US deficit. The Middle East including Africa, dynamic Asia and to a lesser extent China finance the balance. Of these, the Middle East is the most important surplus region financing the rise in the United States' current account deficit since African economies as a group collectively run a deficit on current account. Recycling OPEC oil earnings given higher prices for oil will be a factor behind the surpluses generated by the Middle East.

Note that China's developments have not had a particularly large net impact on the United States current account deficit. Although China has been a high saver, it has also been a large domestic investor. Therefore, while China's exports have risen significantly so have their

⁴ Federal Reserve Bank of San Francisco, *Economic Letter No. 2002–09*, March 29, 2002.









Source: OECD *Economic Outlook No. 76*, December 2004

Box 1 APG-Cubed

The framework used is APG-Cubed model (Version 60n) and subscribers will be familiar with its features. The key points for the scenarios here for the analytical results besides the standard 'adding up' conditions (someone's surplus has to be mirrored in someone else's deficit) are that:

- debt sustainability is built into the model and all borrowing's have to be serviced and eventually repaid;
- agents are forward-looking and form expectations about the future;
- goods and financial markets are formally linked and integrated; and
- real exchange rates and real interest rates are endogenous while nominal exchange rates for China and Hong Kong are pegged to the US dollar.

To see a full description of the model, either follow the links on this website or directly access www.msgpl.com.au

imports and their net change on current account has not been as significant as a source of finance for the rising US deficit.

The economics behind the US current account – cause for concern

The above description of the drivers behind the US current account deficit shows a fundamental switch around 2001. In the late 1990s it was low private savings in the Untied States relative to high private investment that was the main driver. From 2001 on however, it was public dis-saving through fiscal deficits rather than strong private investment that was the driver behind the decline. The deficit reflects spending greater than income and therefore the need to borrow abroad. The debts of the United States went from negative US\$360 billion in 1997 to negative US\$2650 billion in 2003 and expected to be negative US\$3300 billion at the end of 2004 — that is 28 per cent of GDP and rising.⁵

While the United States has managed to service this debt build-up relatively easily, the build-up cannot continue indefinitely. Eventually it will become so large that foreigners will worry about the ability of the United States to service and pay back this debt. That implies, at some point, exports will have to exceed imports. That is, the current account deficit simply reflects spending is greater than income and, sooner or later, that will have to reverse. The question is, when is 'sooner or later'?

So far Asian central banks, in an effort to keep their exchange rates low and promote export led growth, have financed the deficit through purchase of US financial securities. Lee, McKibbin and Park (2004) give a good account of East Asia's export-led growth strategy and what it has meant for current account surpluses.⁶ The surpluses have been driven by the sharp reduction in investment demand while savings remained unchanged. They found that roughly two thirds of the change in the US current account deficit from 1997 to 2002 could be 'explained' by the US fiscal expansion and the Asian investment slump with most contributed by the change in US fiscal position.⁷

The actions by Asian central banks have allowed the United States to finance its borrowing's more cheaply than otherwise. Roubini cites estimates of more than 80 per cent of the United States' 2003 current account deficit being financed by the accumulation of reserves by Asian central banks.⁸

Asian central banks could keep this system going for some time yet say a year or so, but it is not clear why they would continue to accumulate assets whose value is expected to decline. The projections of looming larger deficits will likely eventually spook a reaction and to some extent this has already started. One of the responses to the need for a shift towards exports and away from domestic consumption is a real depreciation of the US dollar. The US dollar has already fallen in real

Roubini, p. 1.

⁶ Lee, J.W., W. McKibbin and JC Park (2004) 'Transpacific Trade Imbalance: Causes and Cures' *Lowy Institute Issues Brief*, September. Available at www.lowyinstitute.org

¹ Lee, McKibbin and Park, p. 24.

⁸ Roubini, p. 4.

CHART 4: EFFECTS OF A FALL IN US CONSUMPTION ON THE US

Real GDP, consumption and investment (per cent deviation from baseline)



Interest rates and inflation (percentage point deviation from baseline)



Exports and imports (per cent deviation from baseline)



Exchange rates (percentage point change from baseline)



Current account and trade balance (per cent of GDP change from baseline)



terms with Obstfeld and Rogoff (cited earlier), claiming much more to come.

Other responses are possible. Asian governments and central banks may ease fiscal and monetary policy to stimulate domestic spending. Europe may undertake a much needed program of microeconomic reform that leads to a large productivity (and hence investment) boost. The US government may get serious about reducing its fiscal deficit. Households in the United States may worry about their future and increase personal saving rates. Confidence may return to Asian economies. All of these actions will have the effect of at least starting to correct the United States current account imbalance that has evolved over the last decade. But each alternative has different implications for financial variables so here we analyse different scenarios through the one consistent global framework (box 1).

Scenarios

Since several developments could 'close' the growing gap in the trade balance of the United States several scenarios are developed here to demonstrate what is relatively most important. Each scenario beings in 2005.

Scenario 1: There is a fall in the exogenous component of US consumption of 1 per cent of GDP.

Scenario 2: The fiscal position of the United States is reversed over the next four years (the term of President Bush). Spending cuts and tax rate increase are imposed which are sufficient to restore the fiscal position of 2000.

Scenario 3: Confidence is restored in Asia so that investment relative to GDP rises to levels pre the 1997 financial crisis (Korea, Thailand, Malaysia and Indonesia). The mechanism is a fall in the equity risk premium in Asian crisis economies to pre crisis levels in order to bring this about.

Scenario 4: There is a rise in China's productivity to raise the growth rate by 1 per cent per year over ten years. This rise in productivity is accompanied by a fall in country risk premia for China.

Scenario 5: A wave of microeconomic reform in Europe lifts productivity and lowers risk premia so that it leads to a 1 per cent per year lift in the growth rate for ten years.

Results

Effects of a decline in US consumption

Falling US consumption means savings rise leading to lower nominal and real interest rates. The increase savings are reallocated to some being invested in the United States and some globally. The increase in US investment is shown in panel 1 of chart set 4. The lower consumption is seen as simulated noting that total real consumption in the model is made up of exogenous (assumed to fall here) and endogenous consumption. The

CHART 5: EFFECTS OF A REVERSAL OF FISCAL POSITION ON THE US

Real GDP, consumption and investment (per cent deviation from baseline)



Interest rates and inflation (percentage point deviation from baseline)



Exports and imports (per cent deviation from baseline)







Current account and trade balance (per cent of GDP change from baseline)



loss in consumption is greater than the investment pick-up so real GDP falls initially below baseline before recovering.

With the outflow of funds (lower inflow) there is an improvement in the current account of the United States (panel 4 of chart set 4). This improvement comes from the improving trade balance that in turn is due to an increase in exports well above any change in imports from baseline. The depreciation of the real effective exchange rate of 2.5 per cent below baseline is not sufficient to reduce imports on balance since the pick-up in domestic investment drags in some imports. The net result is an improvement in the current account in 2005 from baseline of 0.25 per cent expressed as a per cent of GDP.

Note there is divergence between the change in current account and trade balance from baseline shown in panel 5 of chart set 4. The divergence reflects the cumulative reduction in net external debt servicing costs over time caused by lower foreign debt which is the result of a small current account deficit.

Reversal of fiscal position

When government spending is cut and taxes raised over four years to restore the fiscal position of the United States as of 2000, there are some complicating factors at work. The anticipation of falling deficits in the future causes the real exchange rate to depreciate and to be expected to depreciate further. This causes an initial increase in real short term interest rates. In addition the short run inflationary impact of a falling dollar causes short rates to rise. Higher real interest rates combined with a slowing economy as spending falls and taxes rise leads to a short term drop in investment. Investment subsequently recovers and long term real interest rates fall.

Investment declines by over 5 per cent below baseline in 2006 before recovering (panel 1 of chart set 5).

With the increase in national savings but lower short term investment opportunities there is a strong outflow (less net inflow) of capital. The current account as a per cent of GDP improves compared to baseline and is around 1.5 per cent above baseline three years after the correction to the fiscal position (panel 4 of chart set 5). The improvement in the current account position comes from an improvement in the trade balance, which is due to a large increase in exports relative to baseline. Exports are over 15 per cent higher than baseline from 2008 onwards with less happening to imports (panel 3 of chart set 5).

Asian investment recovery

When there is a recovery in investor confidence in crisis hit Asian economies so that investment (relative to GDP) returns to pre 1997 levels, the obvious effect is the lift in investment in those economies. A good example is Korea. With the drop in risk premia and lower cost capital investment in Korea is 16 per cent higher than baseline in 2006 (panel 1 of chart set 6). This causes real GDP to be higher than otherwise.

5

CHART 6: EFFECTS OF RESTORATION OF INVESTOR CONFIDENCE IN ASIA

Real GDP and investment (per cent deviation from baseline): Korea



Exports and imports (per cent deviation from baseline): Korea



Current account and trade balance (per cent change of GDP from baseline): Korea



Current account balance (per cent of GDP change from baseline): United States



Exchange rate (percentage point deviation from baseline): United States



The investment increase drags in capital inflow causing their current account (as a percentage of GDP) to decline by 2 per cent below baseline by 2006. The decline current account is due to the decline in their trade balance so exports fall initially and imports rise (panel 2 and 3 of chart set 6) in response to the strengthening currency.

6

The deterioration in current accounts in Asian economies due to a better investment outlook is mirrored by an improvement in the US current account (panel 4 of chart set 6). As before, there is a rise in exports relative to imports and improvement in the trade balance. Facilitating this change is a devaluation of the US real effective exchange rate of over 1 percentage point in 2005 from baseline (panel 5 of chart set 6).

Productivity improvement in China and Europe

A productivity improvement in China combined with a fall in country risk makes investment more attractive. Investment rises by 15 per cent above baseline by 2006 with a boost to real GDP and consumption (panel 1 of chart set 7).

As with the investment pick-up in Korea, China's current account deteriorates with the extra capital inflow to finance the new investment compared to baseline. The trade balance makes up the bulk of this change and is reflected in lower exports and higher imports than otherwise as shown on panel 2 of chart set 7.

Part of the extra capital inflow is either sourced from the United States or is diverted away from what might have otherwise have been invested in the United States. Hence the US current account improves relative to baseline but the effect is small — just 0.1 per cent improvement past 2006. The adjustment is slightly more complicated because the dollar peg forces a monetary relaxation in China as capital flows in. This further stimulates domestic demand in addition to the income consequences of higher productivity.

The mechanisms working with the China scenario are the same when there is a productivity improvement in Europe except that the loosening of monetary policy associated with the fixed exchange rate regime is absent in the case of Europe.⁹ There is a large improvement in investment with flow-on effects to real GDP and consumption (chart 8). The extra investment is partly funded by offshore funds so the extra capital inflow (less net outflow) compared to baseline causes the current account to deteriorate by 1 per cent by 2009. There is an initial depreciation of the United State's real effective exchange rate below baseline to make these financial flows happen.

Relative effects

Since the one consistent framework is used to simulate various possibilities they can be compared for their effects on the United States' current account, trade balance, real exchange and real GDP at different times.

⁹ In this model specification 'Europe' includes some other OECD economies, the main one being Canada. Europe dominates however.





The largest contribution in reduction in current account deficit comes from the reduction in the US fiscal deficit which is a restoration of the surplus of 2000 over four years. This scenario also implies the largest fall in the United States' real effect exchange rate.

7

A fall in US consumption, restoration of investor confidence in Asian economies hit by the 1997 financial crisis, and a lift in growth in Europe through a productivity boost all contribute similar amounts to a reduction in the current account deficit of the United States. Each delivers about a quarter the impact that eliminating the fiscal deficit has.

The effect of higher growth on China due to productivity growth and favourable investor perceptions has the least impact. Note too, that under the China scenario they still peg their currency to the US dollar. A separate scenario where China floats its currency was not run here since it was analysed at length in a previous report.¹⁰ There it was found that although an appreciation of the Chinese currency lowered the price of imports, the appreciation lifted real interest rates, lowered investment and therefore real GDP growth. The lower incomes and investment lowered the demand for imports, more than offsetting the price effect. So while Chinese exports fell with a revaluation, so did imports — only less so compared to baseline. The net result was little change for the current account and net capital flows. Hence, there was virtually no effect on the current accounts of third countries including the United States when China revalued its exchange rate however there was a large impact on domestic demand in China.

How likely are the different scenarios? President Bush has outlined plans to reduce the fiscal deficit from 3.5 per cent of GDP to 1.7 per cent by 2008. That is less ambitious than chosen in our illustrative scenario. And even the President's plan is given a low chance of succeeding as some of those sectors ear-marked for spending cuts, such as farmers, have begun to lobby hard for their programs.¹¹

nge from baseline in United States key variables under grent scenarios											
	Current account (per cent of GDP change from baseline)		Trade balance (per cent of GDP change from baseline)			Real effect exchange rate (percentage point change from baseline)			Real GDP (per cent deviation from baseline)		
2005	2007	2009	2005	2007	2009	2005	2007	2009	2005	2007	2009
0.3	0.3	0.3	0.3	0.3	0.2	-2.4	-2.4	-2.4	-0.3	-0.2	-0.1
0.9	1.3	1.3	0.9	1.3	1.3	-7.1	-9.6	-11.3	-0.6	-1.9	-1.2
0.2	0.2	0.3	0.2	0.2	0.2	-1.2	-1.3	-1.2	-0.1	-0.2	-0.3
0.1	0.1	0.1	0.1	0.1	0.1	-0.3	-0.4	-0.4	-0.0	-0.1	-0.1
0.2	0.2	0.3	0.2	0.2	0.2	-1.6	-1.2	-0.9	-0.2	-0.3	-0.3
	2005 0.3 0.2 0.1 0.2	Current Current (per cen chai 2005 2005 2007 0.3 0.9 1.3 0.2 0.1 0.2 0.2 0.1 0.2 0.2	Current account (per cent of GDP change from baseline) 2005 2007 2009 0.3 0.3 0.3 0.9 1.3 1.3 0.2 0.2 0.3 0.1 0.1 0.1 0.2 0.2 0.3	Current scenarios Current account (per cent of GDP baseline) (p (p change from baseline) 2005 2007 2009 2005 0.3 0.3 0.3 0.3 0.9 1.3 1.3 0.9 0.2 0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.2 0.2 0.3 0.2	Current scenarios Trade (per cent of GDP) Trade (per cent of GDP) 2005 2007 2009 2005 2007 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1	Current scenarios Trade balance (per cent of GDP change from baseline) Trade balance (per cent of GDP change from baseline) 2005 2007 2009 2005 2007 2009 0.3 0.3 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.3 0.2 0.2 0.2 0.2	Current scenarios Trade balance (per cent of GDP Real et (per cent of GDP 2005 2007 2009 2005 2007 2009 2005 0.3 0.3 0.3 0.3 0.3 0.3 0.2 -2.4 0.9 1.3 1.3 0.9 1.3 1.3 -7.1 0.2 0.2 0.3 0.3 0.2 0.2 0.2 -1.2 0.1 0.1 0.1 0.1 0.1 0.1 -0.3 0.2 0.2 0.3 0.2 0.2 0.2 -1.6	Current scenarios Trade balance (per cent of GDP change from baseline) Trade balance (per cent of GDP change from baseline) Real effect ex rate (per change from baseline) 2005 2007 2009 2005 2007 2009 2005 2007 0.3 0.3 0.3 0.3 0.3 0.2 -2.4 -2.4 0.9 1.3 1.3 0.9 1.3 1.3 -7.1 -9.6 0.2 0.2 0.3 0.2 0.2 0.2 -1.2 -1.3 0.1 0.1 0.1 0.1 0.1 0.1 -0.3 -0.4 0.2 0.2 0.3 0.2 0.2 0.2 -1.6 -1.2	Current account (per cent of GDP change from baseline) Trade balance (per cent of GDP change from baseline) Real effect exchange rate (percentage point change from baseline) 2005 2007 2009 2005 2007 2009 2005 2007 2009 2005 2007 2009 10.3 0.3 0.3 0.3 0.3 0.2 -2.4 -2.4 -2.4 0.9 1.3 1.3 0.9 1.3 1.3 -7.1 -9.6 -11.3 0.2 0.2 0.3 0.2 0.2 0.2 -1.2 -1.3 -1.2 0.1 0.1 0.1 0.1 0.1 0.1 -0.4 -0.4 0.2 0.2 0.3 0.2 0.2 -1.6 -1.2 -0.9	Current account (per cent of GDP change from baseline) Trade balance (per cent of GDP change from baseline) Real effect exchange rate (percentage point change from baseline) (per change from baseline) 2005 2007 2009 2005 2007 2009 2005 2005 2007 2009 2005 2007 2009 2005 0.3 0.3 0.3 0.3 0.3 0.2 -2.4 -2.4 -2.4 -0.3 0.9 1.3 1.3 0.9 1.3 1.3 -7.1 -9.6 -11.3 -0.6 0.2 0.2 0.3 0.2 0.2 0.2 -1.2 -1.3 -1.2 -0.1 0.1 0.1 0.1 0.1 0.1 -0.4 -0.0 0.2 0.2 0.3 0.2 0.2 -1.6 -1.2 -0.9 -0.2	Current scenarios Trade balance (per cent of GDP change from baseline) Trade balance (per cent of GDP change from baseline) Real effect exchange rate (percentage point change from baseline) Real effect exchange point change from baseline) 0.3 0.3 0.3 0.3 0.2 2.0.2 1.2 -1.3 -1.2 -0.1 -0.1

What about a resurgence of investor confidence in Asia? Some economies such as Thailand have experienced booming growth since the 1997 crisis. Prime Minister Thaksin has been popularly re-elected. But *The Economist* still ran the lead story that Thaksin's Thailand is a flawed model¹² — that too much commerce is in the hands of a few family oligopolies, too little regulation, too little foreign competition and lack of a competitive democracy with attendant checks and balances.

www.economicscenarios.com.

 $^{^{10}}$ Economic Scenarios.com 2003, 'What if China revalues its currency?' Issue 7,

¹¹ A good recent assessment of US fiscal policy is by Gale, W.G., and Orszag, P.R. 2005, The Outlook for Fiscal Policy, www.brook.edu/views/articles/20050202.galeorszag.htm. Accessed 15 February 2005.

¹² The Economist 2005, 'Heading back', 5 February, p. 9

China still has potential for productivity growth but even a boost there has little impact on the US current account deficit. And, as discussed above, an earlier issue of *Economic Scenarios* showed no net impact from a floating and revaluation of their currency due to offsetting factors.

Europe is badly in need of microeconomic reform, in particular the labour market and a reduction in still high rates of unemployment. Slow change is foreseen. Other areas such as the costly and wasteful Common Agricultural Policy shows little sign of real change despite the Doha round of trade talks underway.

Even if all the favourable changes that could lead to a reduction of the US current account deficit did occur, that would only reduce the deficit (as a percentage of GDP) by the order of 2.3 per cent from baseline in 2009. The conclusion is that high levels of current account deficit will likely remain and financial markets will be vulnerable to scares about the course of the US economy. A sell-off of the US dollar remains a real prospect but it is possible for the US to run a large current account deficit for a substantial period of time. Note the current account deficit does not have to turn positive, it is the trade balance that must turn positive at some stage to service the debt build-up that mirrors the decline in the current account deficit. And there is little likelihood of a turn around in the trade balance unless the dollar (in real terms) is much lower than levels prevailing over the 1990s. It is very likely that the real value of the dollar still has a way to go either through a depreciation of the nominal exchange rate or a fall in the US inflation rate relative to the rest of the world.

ECONOMIC SCENARIOS A joint product of the Centre for International Economics and McKibbin Software Group Pty Limited www.economicscenarios.com AUTHORS Professor Warwick McKibbin,

wmckibbin@economicscenarios.com

Dr Andrew Stoeckel astoeckel@economicscenarios.com SUBSCRIPTIONS abieler@economicscenarios.com



