

Discussion Paper

Don't worry about the Euro, it has little impact on trade with Europe.

May 2012

Join me on LinkedIn, Twitter or Google+

John Ashcroft PhD BSc(Econ) FRSA CBIM



John Ashcroft PhD, BSc(Econ) CBIM, FRSA

is Chief Executive of pro.manchester, a director of Marketing Manchester, a member of the Greater Manchester Chamber of Commerce, the AGMA Business Leadership Council and a visiting professor at MMU Business School, specialising in Economics, Corporate Strategy and Business Modelling.

John was educated at the London School of Economics and London Business School with a PhD in Economics from MMU.

His doctoral thesis, the UK cyclically adjusted balance of payments 1980 - 1992 was published in 1995.

A more detailed briefing paper, Forty years of UK trade 1970 - 2011 published in April this year provides an update on the original thesis. Depreciation of Sterling and the UK Trade in Goods 2008 -2011 is the latest update in the series.

The Saturday Economist, a weekly update on UK economics is published on the web site. Just Google The Saturday Economist for more information.

The Sunday Times and Croissants is the weekly blog on news, economics, the day job and tennis updates.

The Corporate Strategy Case Study : Apple from the iPod to the iPad Second Edition was published in April 2012 and is available as a free download with teaching notes, excel files and keynote presentations from the web site.



The Saturday Economist Briefing Paper

Don't worry about the Euro, it has little impact on trade with Europe.

By John Ashcroft May 18th 2012

Should we be concerned about the rise in the value of Sterling. Over the last few weeks Sterling has rallied against the Euro, with values increasing from £1.18 to £1.24 the result. The 6% appreciation has led to concerns about export prospects to the Euro zone as UK prices become less competitive.

David Smith, writing in the Sunday Times last week, reassured readers that exporters will not be foiled by the perky pound which has risen to 1.25 from an average 1.15 in 2011.

David Smith is quite right. No need to worry the movement - it is so small. How easily we forget the pound was near parity in December of 2008 [£1.02] compared to £1.46 in 2007. Exchange rate volatility is a fact of market. In the 1980s, the Dollar for example traded at \$2.25 at the start of the decade to trade at near parity just five years later \$1.05 in March 1985.

Business have to accept volatility and react to offset risk by pricing to market in local currency and balancing the currency portfolio risk by input output offset. Dollar revenues can be matched by dollar purchases and so with Euro revenues. Euro revenues can be guaranteed by pricing to market in local currency and matching the currency exposure by buying materials with a Euro or Dollar denomination. In this way the swings of the currency markets have less effect on business volumes and margins.

In some ways this is why the impact of depreciation of the currency has a limited impact of the trade in goods performance. The price elasticity, ie the extent to which sales volumes react to a price cut is muted for exports and in the case of imports, the price elasticity is near to zero, the latter a function of dependency on imports for energy, raw materials, commodities, semi manufactures and food. [JKA 2012, 2012, 1995.]

In this short discussion paper, we outline how the changes in the fortunes of the Euro, have little or no impact on export and import volumes. Exports and imports are highly correlated, [.9256], as exports increase so do imports. The trade deficit is incorrectly signed against sterling values, that is to say as Sterling falls against the Euro, the trade deficit appears to increase.

The price co-efficients are very weak but the demand co-efficients, ie the extent to which exports react to growth in Euroland is high (0.95) but not as high as the extent to which imports react to UK growth [1.26].

Changes in the value of Sterling against the Euro have little or no impact of the trade deficit with the EU and Euroland countries. If anything, they appear to make matters worse. JKA.



UK Exports to the Eurozone have increased from £27.1 billion in the first quarter of 2000 to £39.3 billion in the first quarter of 2012.

Imports from the Eurozone have increased from £28.3 billion to £51.6 billion over the same period.

The trade in goods deficit has increased from £1.2 billion in 2000Q1 to £12.3 billion in 2012Q1.

Yet Sterling has fallen against the Euro from £1.63 to £1.20 at close of period having been as low as £1.10 in the first and fourth quarters 2009.

Imports and exports are highly correlated, as exports increase so does the volume of imports.

The deficit and the Exchange rate are also highly correlated [0.7650] but in the wrong direction. As sterling depreciates against the Euro, the trade deficit appears to increase. Far from increasing competitiveness, the weakness of Sterling exacerbates the trade gap.

To understand the growth of imports and exports, we model imports and exports as a function demand and price. Assuming we use the Euro as the change in price parameter, we then use growth or GDP both Euroland and UK as the demand parameter.

Where :
 $X(f) P, Y(eu), e$
 $M(f) P, Y(uk), e$

Exports are modelled as a result of changes in the Euro exchange rate (p) and demand in the EU zone using GDP as the measure.

Imports are modelled as a result of changes in the Euro exchange rate and demand in the UK using changes in UK GDP as the measure.

In the model results generated the price co-efficients are low and incorrectly signed. The demand co-efficients are high (0.954) in the case of exports and (1.2638) in the case of imports.

In other words 10% growth in the EU will result in a 9.5% growth in UK exports to the EU zone but a 10% growth in the UK economy will result in a 12.6% growth in import volumes.

“The depreciation of sterling just makes matters worse not better”

Far from increasing competitiveness, the weakness of Sterling exacerbates the trade gap.

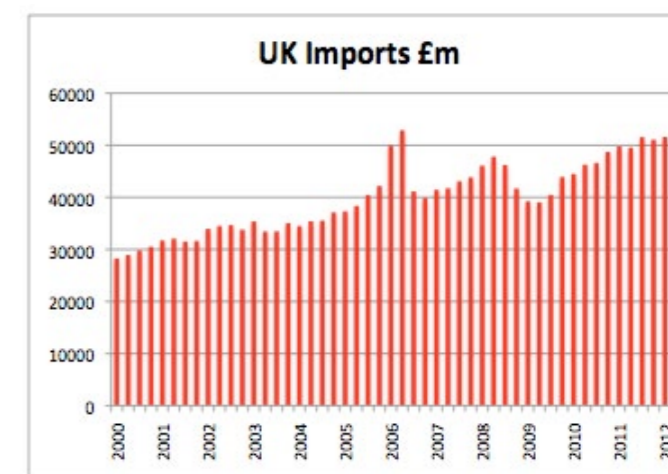
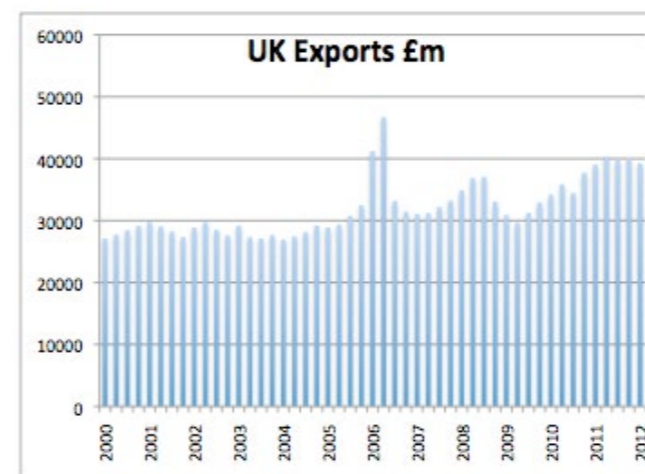
Demand co-efficients are dominant.

“10% growth in the EU results in a 9.5% growth in UK exports to the EU zone

but a 10% growth in the UK economy results in a 12.6% growth in import volumes”

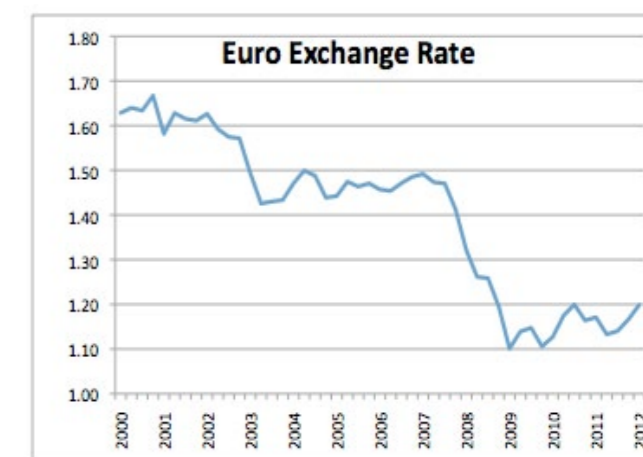
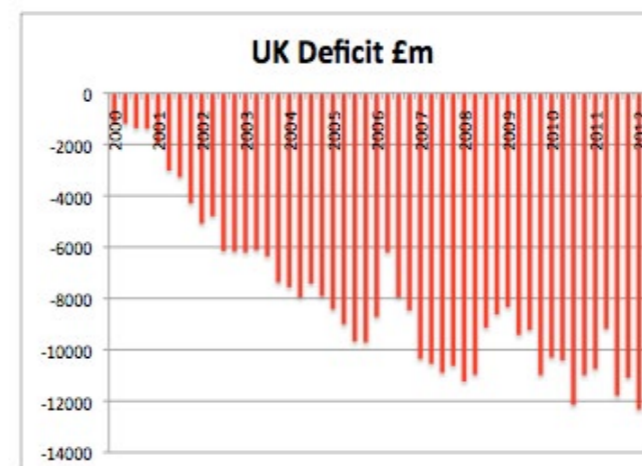
Other Discussion Papers on this subject :
 Forty Years of UK trade 1970 - 2010 [2012]
 Sterling and the UK Trade in Goods [2012]
 Determinants of the UK Deficit [1995]

UK Trade in Goods with the Eurozone



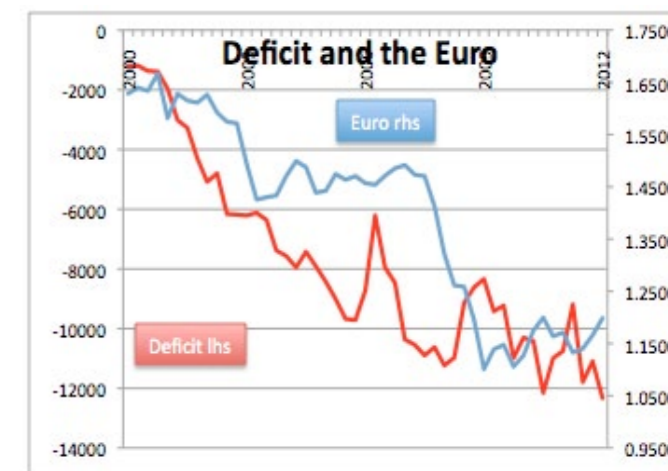
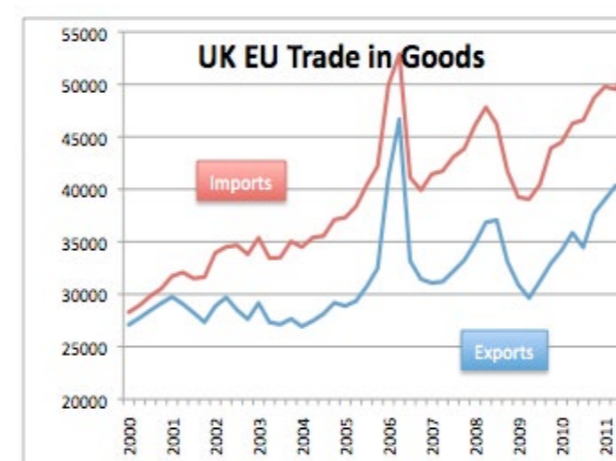
UK Exports to the Eurozone have increased from £27.1 billion in the first quarter of 2000 to £39.3 billion in the first quarter of 2012.

Imports from the Eurozone have increased from £28.3 billion to £51.6 billion over the same period.



The trade in goods deficit has increased from £1.2 billion in 2000Q1 to £12.3 billion in 2012Q1.

Yet Sterling has fallen against the Euro from £1.63 to £1.20 at close of period having been as low as £1.10 in the first and fourth quarters 2009.



Imports and exports are highly correlated, [0.9256]

The deficit and the Exchange rate are also highly correlated [0.7650] but in the wrong direction

Appendix 1 UK Import Model :

| Ordinary Least Squares Estimation | | | |
|---|---------------------------|----------------------------|------------------------|
| ***** | | | |
| Dependent variable is LOGEUX | | | |
| 49 observations used for estimation from 2000Q1 to 2012Q1 | | | |
| ***** | | | |
| Regressor | Coefficient | Standard Error | T-Ratio[Prob] |
| INPT | -7.2358 | 1.8276 | -3.9591[.000] |
| LOGGDP | 1.2638 | .12736 | 9.9236[.000] |
| LOGEURO | .25266 | .14341 | 1.7618[.085] |
| ***** | | | |
| R-Squared | .85545 | R-Bar-Squared | .84917 |
| S.E. of Regression | .067562 | F-Stat. | F(2,46) 136.1200[.000] |
| Mean of Dependent Variable | 10.5807 | S.D. of Dependent Variable | .17396 |
| Residual Sum of Squares | .20997 | Equation Log-likelihood | 64.0606 |
| Akaike Info. Criterion | 61.0606 | Schwarz Bayesian Criterion | 58.2229 |
| DW-statistic | .70982 | | |
| ***** | | | |
| Diagnostic Tests | | | |
| ***** | | | |
| * Test Statistics * | LM Version | F Version | * |
| ***** | | | |
| * A:Serial Correlation* | CHSQ(4) = 24.7636[.000] | *F(4,42) | = 10.7284[.000]* |
| * B:Functional Form | *CHSQ(1) = .67516[.411] | *F(1,45) | = .62870[.432]* |
| * C:Normality | *CHSQ(2) = 25.5843[.000]* | Not applicable | * |
| * D:Heteroscedasticity* | CHSQ(1) = 1.7752[.183] | *F(1,47) | = 1.7668[.190]* |
| ***** | | | |
| A:Lagrange multiplier test of residual serial correlation | | | |
| B:Ramsey's RESET test using the square of the fitted values | | | |
| C:Based on a test of skewness and kurtosis of residuals | | | |
| D:Based on the regression of squared residuals on squared fitted values | | | |

Appendix 2 UK Export Model :

| 17/05/2012 | 16:15:18 | | | |
|---|---------------------------|----------------------------|-----------------------|--|
| Ordinary Least Squares Estimation | | | | |
| ***** | | | | |
| Dependent variable is LOGUKX | | | | |
| 48 observations used for estimation from 2000Q1 to 2011Q4 | | | | |
| ***** | | | | |
| Regressor | Coefficient | Standard Error | T-Ratio[Prob] | |
| INPT | -3.5204 | 3.2423 | -1.0858[.283] | |
| LOGEUGDP | .95405 | .21961 | 4.3442[.000] | |
| LOGEURO | .050442 | .18312 | .27546[.784] | |
| ***** | | | | |
| R-Squared | .54333 | R-Bar-Squared | .52304 | |
| S.E. of Regression | .093481 | F-Stat. | F(2,45) 26.7700[.000] | |
| Mean of Dependent Variable | 10.3628 | S.D. of Dependent Variable | .13536 | |
| Residual Sum of Squares | .39324 | Equation Log-likelihood | 47.1997 | |
| Akaike Info. Criterion | 44.1997 | Schwarz Bayesian Criterion | 41.3929 | |
| DW-statistic | .65092 | | | |
| ***** | | | | |
| Diagnostic Tests | | | | |
| ***** | | | | |
| * Test Statistics * | LM Version | F Version | * | |
| ***** | | | | |
| * A:Serial Correlation* | CHSQ(4) = 24.9473[.000] | *F(4,41) | = 11.0924[.000]* | |
| * B:Functional Form | *CHSQ(1) = 5.2389[.022] | *F(1,44) | = 5.3907[.025]* | |
| * C:Normality | *CHSQ(2) = 38.4066[.000]* | Not applicable | * | |
| * D:Heteroscedasticity* | CHSQ(1) = .82942[.362] | *F(1,46) | = .80884[.373]* | |
| ***** | | | | |
| A:Lagrange multiplier test of residual serial correlation | | | | |
| B:Ramsey's RESET test using the square of the fitted values | | | | |
| C:Based on a test of skewness and kurtosis of residuals | | | | |
| D:Based on the regression of squared residuals on squared fitted values | | | | |

Discussion Paper

Don't worry about the Euro.....

May 2012

Join me on LinkedIn, Twitter or Google+

John Ashcroft PhD BSc(Econ) FRSA CBIM