Willem H. Buiter

Economic, political, and institutional prerequisites for monetary union among the members of the Gulf Cooperation Council

Economic, Political, and Institutional Prerequisites for Monetary Union among the members of the Gulf Cooperation Council[*]

Willem H. Buiter CBE, FBA[**]

Professor of European Political Economy,
European Institute,
London School of Economics and Political Science

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Abstract

The paper reviews the arguments for and against monetary union among the six members of the Gulf Cooperation Council - the United Arab Emirates, the State of Bahrain, the Kingdom of Saudi Arabia, the Sultanate of Oman, the State of Qatar and the State of Kuwait. Both technical economic arguments and political economy considerations are discussed

I conclude that there is an economic case for GCC monetary union, but that it is not overwhelming. The lack of economic integration among the GCC members is striking. Without anything approaching the free movement of goods, services, capital and persons among the six GCC member countries, the case for monetary union is mainly based on the small size of all GCC members other than Saudi Arabia, and their high degree of openness. Indeed, even without the creation of a monetary union, there could be significant advantages to all GCC members, from both an economic and a security perspective, from greater economic integration, through the creation of a true common market for goods, services, capital and labour, and from deeper political integration.

The political arguments against monetary union at this juncture appear overwhelming, however. The absence of effective supranational political institutions encompassing the six GCC members means that there could be no effective political accountability of the GCC central bank. The surrender of political sovereignty inherent in joining a monetary union would therefore not be perceived as legitimate by an increasingly politically sophisticated citizenry. I believe that monetary union among the GCC members will occur only as part of a broad and broadly-based movement towards far-reaching political integration. And there is little evidence of that as yet.

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Author information:

Professor Willem H. Buiter CBE, FBA
Chair of European Political Economy,
European Institute
London School of Economics and Political Science
Houghton Street
London WC2A 2AE
United Kingdom
Tel.: + 44 (0)20 7955 6959
Fax: + 44 (0)20 7955 7546
E-mail: w.buiter@lse.ac.uk
Personal website: http://www.nber.org/~wbuiter/
Blog: http://blogs.ft.com/maverecon/
Company website: http://www.tbeconsulting.co.uk

Introduction

This paper considers the viability and desirability of alternative exchange rate regimes for the six members of the Gulf Cooperation Council – the United Arab Emirates, the State of Bahrain, the Kingdom of Saudi Arabia, the Sultanate of Oman, the State of Qatar and the State of Kuwait.

There are two key dimensions of the currency regimes of the Gulf Cooperative Countries: the internal exchange rate regime and the external exchange rate regime. The internal currency regime choice concerns the exchange rate regime of each of the GCC members vis-à-vis the other members. The external exchange rate regime concerns the exchange rate regime of the GCC as a whole vis-à-vis the rest of the world. The two cannot, in general, be specified independently. If every GCC member has a well-defined regime for its national currency vis-à-vis some external currency or basket of currencies, this would fully determine the 'internal' relationships among the external values of the six GCC national currencies. However, the opposite does not hold. Even if the six GCC countries were to adopt a common currency, this would leave completely open the issue of how the external value of this common currency is to be managed or determined.

I will not focus on the optimal external exchange rate regime of a GCC monetary union, other than noting that it is unlikely to involve a currency peg vis-à-vis the US dollar, as this is the regime whose shortcomings are currently creating pressures for the individual GCC members to abandon their bilateral pegs with the US dollar.

As regards the internal exchange rate regime, I will focus on the economic and political feasibility and desirability of monetary union, or a common currency, a long-standing ambition of the GCC. The establishment of a common currency, the Khaleeji, by 2010, was declared an official objective of the GCC at the Economic Agreement of 2001 between the GCC States.

However, Oman announced in 2006 that it would not be able to meet the target date. It proposed the other GCC members would move ahead with monetary union, with Oman joining at a later date. In addition, the common practice of pegging to the US dollar that had been adopted by all six GCC members before May 2007, and which was viewed by many as a good platform from which to launch a common currency, was abandoned by Kuwait in May 2007 when, in a bid to reduce inflationary pressures, it pegged its dinar to a basket of international currencies after more than four years of linking the local currency to the US dollar. The dinar had been pegged to the US dollar in January 2003 in preparation for the move towards the single currency. In November 2007, the governor of the UAE central bank announced that the UAE would consider switching from a US dollar peg to a currency basket if the US dollar were to weaken further.

Anticipating and summarising the argument that follows, I consider the establishment of a common currency for all six GCC members by the target date to be practically impossible; the Omani decision to delay, the Kuwaiti abandonment of the US dollar peg and the prospect of the UAE also moving to a currency basket peg play only a small part in reaching that conclusion. The non-feasibility of monetary union by 2010 should come as no surprise, nor should it be taken as evidence that the objectives will not be achieved in due course (which need not mean 'in the fullness of time'). Economic and monetary union is a difficult and lengthy process. In the GCC, even the customs union, set up in 2003 is not yet completely implemented. The common market that was to be achieved by 2007 is still a long way off. The proponents of Economic and Monetary Union for the GCC should consider the fact that the EU was founded (as the European Economic Community) 50 years ago, and that even in the EU there still is no single market in services, which account for 70 percent of EU GDP. Monetary Union in the EU includes only 13 of the 27 member states (15 after January

1, 2007) and two EU members, the UK and Denmark, have opt-outs from monetary union which are, in principle, open-ended.

I will consider some of the key issues facing countries considering joining together in a monetary union. The issues are not just technical and economic in nature. Some are deeply political. A historical and political economy perspective is therefore just as essential as a mastery of technical monetary, financial and economic matters. The unique structural economic characteristics of the GCC as an region dominated by oil and natural gas production but with a strong drive towards diversification into tradable services, make for a number of unique challenges for fiscal, financial, monetary and exchange rate management. The exchange rate regime must be capable of accommodating both cross-sectional heterogeneity and profound structural change over time.

The political and political prerequisites for the sustainability of a currency union for the GCC are demanding. Currency union can be a rewarding option if these preconditions are met. But it is by no means the easy option. The political and economic consequences of a failed currency union could be serious. My presentation will also cover the transitional arrangements, the preconditions for membership, including nominal, financial and real convergence, that would maximise the chances of a successful currency union.

(1) Microeconomic efficiency and financial stability aspects of a common currency

(1A) The microeconomics of a common currency

The transactions cost saving advantages of a common currency are familiar. A medium of exchange or transactions medium is subject to a network externality (Dowd and Greenaway (1993), European Commission (1990)). The usefulness to me of a medium of exchange is increasing in the number of other economic agents likely to accept it as a

medium of exchange. By eliminating the need for the exchange of one currency for another, real resource costs are saved. From a microeconomic efficiency point of view, if one were to design the world from scratch, a single currency would be adopted.

If the status quo is a situation in which there are multiple national currencies, as it is for the GCC, the permanent flow of transaction cost savings from having a common currency have to be balanced against the one-off, up-front switch over costs of moving to a common currency. Little can be said about the magnitude of the resource savings involved. Estimating them from the spreads in the foreign exchange markets will understate the true cost because it ignores the 'in-house' costs incurred by the non-bank parties in the foreign exchange transactions. It overestimates the true costs to the extent that there are monopoly profits or X-inefficiency in the foreign exchange markets.

In its report *One market, one money* (European Commission (1990)), the Commission of the European Communities estimated the permanent flow of exchange transaction costs savings at about 0.5 percent of GDP for the 15 member Community as a whole. Of course, this exercise involved the abolition of 14 national currencies and their replacement by a single currency. With only six currencies involved, the resource savings for the GCC members would be smaller. The foreign exchange transaction costs savings should also be augmented by the transactions costs saved in transactions between instruments denominated in national currencies that would be redundant if a common currency were adopted. E.g. switching from Quatari riyal-denominated securities into otherwise identical UAE dirham denominated securities would involve the sale of the Quatari securities, a purchase of dirham and the purchase of the UAE securities. There would be three transactions, and three sets of transaction costs. Foreign exchange market transaction costs are just one of the three.

The magnitude of the switching costs for the GCC are even harder to estimate. I am assuming here that the new common currency for the GCC would be a physically new

currency, the Khaleeji, rather than the existing currency with the larges circulation. Using an existing currency (in the case of the GCC this could only by the Saudi riyal) would be cheaper, but would pose political problems and detract from the symbolism of creating de novo a new currency.

In the case of EMU, competing estimates differed by one and sometimes two orders of magnitude. The switching costs do not just involve the administrative and hardware cost of re-denominating all contracts, changing vending machines etc. but also the psychological/mental costs of having to compute prices with a new numeraire.

A final microeconomic benefit from a common currency is the greater price transparency it creates. Price discrimination and market segmentation are discouraged when buyers can more easily engage in comparison shopping. Again, this argument relies on bounded rationality, and the magnitude of these benefits is anyone's guess.

(1B) Seigniorage and the inflation tax

I assume the GCC monetary union would be a *formally symmetric* monetary union, in which each member state has a voice in the monetary policy decision making process, each member state has recourse to the lender-of-last resort facilities of the central bank, and the seigniorage of the central bank is shared fairly among the members, based on some key like population, GDP or national seigniorage prior to monetary union. There are several ways of measuring the resources appropriated by the state through the issuance of non-interest-bearing monetary liabilities. Currency is of course non-interest-bearing. The other main liquid liability of the central bank, commercial bank reserves with the central bank, can be either remunerated (bearing interest or its sharia-compliant analogue) or unremunerated.

One straightforward measure of revenue from the activities of the central bank is simply the change in the monetary base. To get a sense of magnitude, it is helpful to express

this as a fraction of nominal GDP. Letting M_t denote the nominal stock of base money at the beginning of period t, P_t the price level and Y_t real GDP in period t, I define seigniorage, σ, as follows:

$$\sigma_t = \frac{\Delta M_{t+1}}{P_t Y_t} \qquad (1)^{1}$$

An alternative measure considers the interest bill foregone by having non-interest-bearing rather than interest-bearing liabilities. I denote this ω. Let i_t be the short risk-free nominal interest rate between periods t-1 and t , then

$$\omega_t = i_t \frac{M_t}{P_t Y_t} \qquad (2)$$

A related measure of the monetary revenue of the state is the inflation tax, the reduction in the purchasing value of the outstanding stock of base money. I will refer to this as the anticipated inflation tax, denoted τ. Let π_t be the rate of inflation between periods t-1 and t[2], then

$$\tau_t = \pi_t \frac{M_t}{P_t Y_t} \qquad (3)$$

The three measures are related (see Buiter (2007a)). For my purposes here, the most important relationship is that between seigniorage and the inflation tax. Let $m_t = \frac{M_t}{P_t Y_t}$ be the base money-GDP ratio and g the growth rate of real GDP, then

[1] When the monetary base pays a nominal interest rate i_{t+1}^{M} on a unit of the monetary base held between periods t and $t+1$, equation (1) becomes: $\sigma_t = \frac{M_{t+1} - (1 + i_t^{M}) M_t}{P_t Y_t}$ (see Buiter (2007a)).

$$\frac{\Delta M_{t+1}}{P_t Y_t} = \pi_{t+1} m_{t+1} + g_{t+1}(1+\pi_{t+1}) m_{t+1} + \Delta m_{t+1}$$

or (4)

$$\sigma_t = \tau_{t+1} + g_{t+1}(1+\pi_{t+1}) m_{t+1} + \Delta m_{t+1}$$

That is, seigniorage as a share of GDP equals the inflation tax, plus the real growth bonus (the increase in the demand for real base money associated with higher real GDP growth) plus the change in the stock of real money balances as a share of GDP. Of course, attempts to raise seigniorage as a share of GDP by increasing the growth rate of the nominal stock of base money will cause inflation and higher nominal interest rates. This will lower the demand for real money balances. Ultimately, for empirically relevant money demand functions like the log-linear and the linear ones, the demand for real money balances becomes more than unit elastic (in absolute value) with respect to the (expected) rate of inflation as the (expected) rate of inflation rises , and real seigniorage and seigniorage as a share of GDP decline as inflation rises beyond that point.

Neoclassical optimal public finance arguments suggest that, if the fiscal authorities do not have sufficient non-distortionary taxes at their disposal, the distortionary inflation tax will be used, together will all other distortionary taxes, in such a way as to minimize the inevitable distortions and efficiency losses, now and in the future, associated with the financing of any given public spending programme. If the GCC countries differ in the effectiveness of their tax administrations, different national inflation rates may be optimal. This would be an argument against monetary union.

Even in the rarified world of these neoclassical public finance models, this argument is by no means robust, however. Money is an asset, as well as a medium of exchange (indeed, to be a medium of exchange it has to maintain some value over some period, however short, so it has to be a store of value), and there is a considerable literature suggesting that, at least in steady state, assets should not be taxed (see Chamley (1986)). Money can also be thought

of as an intermediate input in the process transforming primary inputs into goods and services available for household consumption. There is another body of literature suggesting that taxing intermediate inputs is undesirable. The intuition is that a tax on an intermediate input creates two separate distortions. It creates an *allocative* inefficiency in final demand (consumption) as users substitute away from goods and services using the taxed intermediate input more intensively toward goods and services that use it less intensively. A tax on an intermediate input also creates a *productive* inefficiency by distorting the input mix used to produce the final good or service. The first inefficiency is unavoidable. The second inefficiency can be avoided by taxing the final good or service rather than the intermediate input (Diamond and Mirrlees (1971), Dasgupta and Stiglitz (1972)). This is, of course, not the final word on the issue, as with more than one distortion, e.g. distortionary taxes and imperfect competition, the 'curse of the second-best' strikes, and unambiguously welfare-improving policy interventions become hard to find (Stiglitz and Dasgupta (1971)).

Whatever the merits of this literature, the data make it clear that modern states with well-developed financial systems do not make use of the inflation tax to any significant extent. In addition, the GCC member states have, for the foreseeable future, access to ample oil revenues which have many of the properties of lump-sum tax revenues. I would therefore recommend the GCC member countries not to see the inflation tax as a desirable source of government revenue, regardless of whether they build a monetary union together.

As long as each member state in the GCC monetary union gets a fair share of the seigniorage revenue of the single central bank, there should be no revenue losses associated with a move to monetary union.

If anything, there would be a benefit from increased *international* seigniorage. In a monetary union national foreign exchange reserves are pooled, but the demand for international reserves by the single central bank is likely to be less than the sum of the

demands of the national central banks prior to monetary union. In addition, with continued sound macroeconomic management and robust economic growth, the new Khaleeji could become an attractive reserve currency for other countries, initially mainly other states in the region, but ultimately also at the global level, alongside the US dollar and the euro. The currency could also be held abroad by private individuals and businesses who trust its value more than that of their national currencies.

(IC) Centralised decision-making, centralized issuance, possible decentralised implementation

It is worth stating explicitly, although it should be redundant, that there can be but one central bank and but one monetary authority with the power to set interest rates, to decide on monetary issuance, to manage the common external exchange rate etc. There have been historical examples of monetary unions with multiple independent centres of monetary issuance. This occurred, for instance, following the collapse of the Soviet Union in 1991, when there was an attempt to maintain the rouble zone among a number of CIS countries. Not surprisingly, the experiment ended in hyperinflation, with each independent centre of monetary issuance trying to free-ride on the rouble-zone-wide demand for roubles issued in any of the centres of issuance.

It is possible, as the example of the Eurosystem and the Federal Reserve System show, to have operational decentralisation of certain aspects of the implementation of the single monetary policy, such as open market operations and discount window operations. But in substance, the national central banks in the Euro Area have become branch banks of the European Central Bank.[2] They have no independent authority and policy role. The same

[2] This emasculation of the National Central Banks (NCBs) has occurred despite the fact that the NCBs are the shareholders of the ECB. The only role in monetary policy formulation and design of the NCBs comes from the fact that each of them provides its Governor as a member of the rate-setting body of the ECB, the Governing Council. With Malta and Cyprus joining the EMU on January 1, 2008, there will be fifteen EU member states. Fifteen is the maximum number of NCB governors that can vote at a ECB Governing Council meetings. When

holds true, of course, for the regional reserve banks of the Federal Reserve System. It would be the same for the GCC.

(1D) Unrestricted capital mobility within the monetary union

While it is technically conceivable to maintain capital controls within a monetary union, it would make the transmission of the common monetary policy awkward. It would also greatly undermine the attractiveness of the new currency as a store of value, domestically and internationally, as a reserve currency and as a vehicle currency. The GCC would be well advised to have completely unrestricted internal mobility of financial capital in the monetary union. The external capital mobility regime for the union as a whole is, in principle, a matter of choice. However, given the ambitions of Dubai and Qatar to become regional and even global financial centres, it is difficult to envisage any external capital mobility regime for a GCC monetary union other than that of completely unrestricted mobility of financial capital.

(1E) A single regulator for the banking system and the financial sector

It is possible to have multiple independent regulators and supervisors for the banking system, other financial institutions and financial markets in a monetary union. The example of the Eurosystem, where regulation and supervision continue at the national level makes that clear.

The need for coordination and cooperation would, however, be paramount in such a decentralised system of supervision and regulation. Again, the example of the Eurosystem during the financial crisis of 2007 provides an example of what happens when the need for coordination exceeds the institutional capacity for delivering it. The logic of a single

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the number of EMU member states exceeds 15, the NCB governors will begin to rotate as regards voting rights, even though all governors continue to have to right to participate in Governing Council meetings.

currency dictates the most rapid possible convergence of supervisory and regulatory standards and practices, and preferably the creation of a single GCC-wide regulator for a given set of financial institutions, markets, exchanges or instruments. Whether this should take the form of a single regulator, like the FSA in the UK, for virtually all financial markets, exchanges, instruments and institutions (other than pension funds) or instead separate regulators for different subsectors of the financial services industry, such as insurance, commercial banking, brokerage etc. remains an open issue. Synergies and economies of scale and scope are exhausted at some point and turn into lack of focus and problems posed by an excessive span of control. At what scale and range of activities this happens we don't know.

It also remains an open issue as to whether the central bank (the monetary authority of the GCC) should have a regulatory and supervisory role vis-à-vis the banking sector, or should be restricted to a narrow set of tasks strictly related to monetary policy – a minimalist monetary authority in the sense of Buiter (2006b, 2007b). Operational independence for the central bank as regards the conduct of monetary policy cohabits uncomfortably with the deeply political nature of banking supervision and regulation. On the other hand, the financial crisis of 2007 has provided a brutal reminder of what happens to central banks that are assigned the lender-of-last-resort (LOLR) function (discussed in Section 1F below), but that do not have adequate information on the liquidity positions of the individual banks that constitute their potential LOLR clientele. The mismanagement by the Bank of England and FSA of the Northern Rock crisis is not surprising when the institution that should have the individual bank-specific information (the FSA) does not have the resources to act as LOLR and the institution with the resources (the Bank of England) does not have the necessary individual bank-specific information (see Buiter (2007c)).

(IF) Financial stability: the lender of last resort

The state has a unique responsibility for dealing with systemic financial instability. The reason is that the state has deeper pockets than any private domestic agent. The state has the monopoly of the legitimate use of coercion and force. This is expressed through its power to tax, to declare certain of its liabilities to be legal tender, and to regulate – to prescribe and to proscribe behaviour. The central bank is the state agency with the short-term deep pockets, derived from its ability to issue legal tender. If a financial crisis is not a short-lived phenomenon (a liquidity or rollover crisis), but becomes a long-term solvency crisis for a substantial part of the financial sector, the short-term deep pockets of the central bank must be supplemented with the long-term deep pockets of the ministry of finance. A central bank that attempts to recapitalize a sizeable chunk of a bankrupt private financial sector's balance sheet would undermine its own solvency. Since the central bank does not itself have the power to tax, central bank solvency could be safeguarded only be continued monetary issuance, which would be inflationary. Non-inflationary recapitalisation of a bankrupt financial system requires the resources of the state agency with the long-term deep pockets: the ministry of finance with its power to tax.

I assume that monetary union in the GCC would follow the lead of the EU, where there is no serious supranational fiscal power. The European Commission budget is about one percent of EU GDP, and it has no borrowing authority. The ECB is therefore backed, financially, by the national Treasuries of, in the first instance, the EMU member states, and ultimately, the resources of the Treasuries of all EU member states. After all, all EU national central banks are ECB shareholders, and the NCBs are backed by their respective national fiscal authorities.

At the EU level, the distribution of the fiscal cost of recapitalising private banks, should the need arise, is still an open issue. The GCC will face the same issues. With six

national Treasuries involved in a full GCC monetary union, there would have to be clarity about the distribution of the fiscal burden associated with LOLR and other liquidity and solvency support operations conducted by the GCC central bank.

To a minor extent, the lender of last resort function can be 'privatised', through deposit insurance, the arranging of contingent credit lines etc. For truly systemic financial crises this is inadequate.

In a monetary union, there is a single lender of last resort – the union-wide central bank. The operational implementation of the lender-of-last-resort function can, however, be decentralised, as it continues to be in the Federal Reserve System and in the Eurosystem. The GCC central bank would, however, have the right to veto any financial support operations by the GCC NCBs that would, in the opinion of the GCC central bank, undermine the GCC's central mandate, which I take to be price stability, that is, a low and stable rate of inflation in the medium and long term.

(2) Macroeconomic stabilisation aspects of a common currency: the theory of optimal currency areas revisited

My first maintained hypothesis in what follows is that national monetary autonomy is capable of delivering, on average and in a sustained manner, an rate of inflation compatible with most reasonable definitions of price stability. In the case of the GCC countries, the pursuit of price stability does require abandoning the US dollar peg and moving to an exchange rate regime that permits the currency to appreciate vis-à-vis the US dollar as the US dollar weakens. When oil-wealth-driven demand is booming, a currency peg with a currency that is weakening steadily against most other currencies (and in terms of its effective or trade-weighted exchange rate) is incompatible with price stability or low inflation.[3] Figures 1 and

[3] As a currency basket, the SDR would appear to be a much better choice for the GCC countries than the US dollar. The current composition of the SDR basket of currencies is as follows:

2 show that periods of US dollar weakness (interpreted here as periods when the bilateral exchange rate of the GCC currencies vis-à-vis the US dollar remained constant while the effective nominal exchange rates of the GCC currencies weakened), have tended to be periods of high GCC inflation and that periods of US dollar strength have tended to be periods of low GCC inflation. The past three years are no exception to this rule, although the increase in inflation rates differs significantly among the individual GCC members.

Figure 1 here

Figure 2 here

It is striking that, whatever the official designation of the exchange rate regimes of the GCC countries may have been (see Box 1), all but Kuwait have operated an effectively fixed nominal exchange rate vis-à-vis the US dollar for the 17-year period shown in Figure 2. And even for Kuwait, the changes in the bilateral exchange rate of the Kuwaiti Dinar and the US dollar have been small. These common nominal bilateral exchange rates vis-à-vis the US dollar have been compatible with movements in opposite directions of nominal and real effective (trade-weighted) exchange rates and significant divergences in inflation rates, with both Quatar and the UAE approaching 15 percent inflation rates during 2007, with Saudi-Arabia's inflation rate at no more than 5 percent. This experience is rather like that of the Baltic states in the EMU during 2006 and 2007 (taking the roles of Qatar and the UAE), compared to that of Germany and France (playing the part of Saudi Arabia).

Box 1 here

	2001 Weights	2006 weights
US dollar	45	44
Euro	29	34
Japanese yen	15	11
UK sterling	11	11

Granted then that, given a change in the external exchange rate regime, both national monetary autonomy and monetary union can deliver a reasonable degree of price stability in the medium and long term, the macroeconomic stability issue can be narrowed down to the question as to which regime is more likely to stabilise the real economy, that is, which regime is more likely to avoid or minimise deviations of actual from capacity output.

My second maintained hypothesis is that the choice of exchange rate regime will have no significant impact on the path of capacity output or on the natural rate of unemployment. I therefore rule out both a long-run non-vertical Phillips curve and hysteresis in the natural rate of unemployment. Temporary real shocks only have temporary real effects. Nominal shocks, whether temporary or permanent, are like temporary real shocks. I recognise that monetary shocks, to the extent that they affect investment decisions of any kind (or through such features as overlapping, staggered nominal contracts), can have real effects that may last longer than the duration of even the longest nominal contract. I do however, maintain the assumption that money is neutral in the long run. For practical purposes, we can take the long run to be between two and three years.

How useful a stabilisation instrument is monetary policy, working through domestic short nominal interest rates and a floating nominal exchange rate? What does a nation give up, in terms of the ability to pursue macroeconomic stabilisation policy, by surrendering monetary sovereignty and joining a monetary union and, if there is a material loss a stabilisation potential, how can it compensate for the loss of the monetary instrument? These are the central questions that motivated the theory of optimal currency areas.

The theory of optimal currency areas (Mundell (1961), McKinnon (1963), Ingram (1969), Kenen (1969), Masson and Taylor (1992)) is almost entirely useless as a guide to the choice of currency regime in modern economies. It has two key failures. The first is a chronic confusion between transitory nominal rigidities and permanent real rigidities. The

theory, not surprisingly given its date of birth, is highly 'old-Keynesian'. The result is a greatly overblown account of the power of monetary policy to affect real economic performance.

The second key shortcoming from the perspective of relevance to contemporary macroeconomic stabilisation policy, is that the conventional OCA literature was designed for a world without endogenous capital mobility. Exchange rate movements are driven by the trade balance, by exogenous capital movements and by goods markets. Exchange rate movements are stabilising and dampen the excess demand for or excess supply of output and labour. It ignores the modern reality that exchange rates are proximately set in financial asset markets, and that far from acting as buffers and stabilising elements for the real economy, they can amplify shocks and disturbances and destabilise the real economy. The foreign exchange market can be a source of shocks, excess volatility, instability and persistent misalignment.

The optimal currency area literature asks which of a set of national (or regional) economies each of which has its own national (regional) currency, would benefit from having irrevocably fixed exchange rates with one or more of the other currencies. The following characteristics of either the individual national economies or the multi-country system as a whole, have been argued to favour retention of the national currency, and the associated scope for nominal exchange rate flexibility (for an empirical analysis of some of these criteria for the six GCC countries, see Pattanaik (2007)).

(1) A high degree of nominal rigidity in domestic prices and/or costs.

(2) A high degree of openness to trade in real goods and services.

(3) A high incidence of asymmetric (nation-specific) shocks rather than symmetric or common shocks and/or dissimilarities in national economic structures or

transmission mechanisms that causes even symmetric shocks to have asymmetric consequences.

(4) A less diversified structure of production and demand.

(5) A low degree of real factor mobility (especially labour mobility) across national boundaries.

(6) Absence of significant international (and supra-national) fiscal tax-transfer mechanisms.

(2A) How important are nominal cost and price rigidities in the GCC?

If there are no significant nominal cost and price rigidities, the exchange rate regime is a matter of supreme macroeconomic insignificance. From the perspective of economics, only the microeconomic transactions and switch over costs matter. A country mired in *real* rigidities will no doubt have a miserable real economic performance. Unless these real rigidities can be addressed effectively through changes in the nominal exchange rate, which is exceedingly unlikely, the country's performance will be equally miserable with a common currency, an independent national currency and a floating exchange rate, or with a system of universal bilateral barter.

The severity and persistence of nominal rigidities therefore becomes a key empirical and policy issue. Unfortunately, the available empirical evidence is extremely opaque and very hard to interpret. Information drawn from micro data sets for the GCC countries, or even systematic studies of the macroeconomic regularities in nominal wage and price setting for the GCC countries, are few and far between. In addition, a straightforward causal interpretation of summary statistics on the duration of nominal wage and price contracts and on the extent to which they are synchronised or staggered is subject to an obvious application of the Lucas critique. These contracting practices are not invariant laws of nature, but the

outcomes of purposeful choices. Changes in the economic environment conditioning these choices will change the practices.

The application to optimal currency area theory and empirics of the Lucas critique has become known as the "endogeneity of the OCA criteria literature" (see Frankel and Rose (1997, 1998)). In this particular application, the endogeneity of the OCA criteria would suggest that the degree of nominal rigidity and persistence could itself be a function of the exchange rate regime, and could change as a result of the adoption of a common currency.

Testing price and wage data for persistence is equally unlikely to be enlightening. The pattern of serial correlation in the data reflects both 'true' structural lags, invariant under changes in the economic environment, and expectational dynamics that will not be invariant when the rules of the game are changed. There is no deep theory of nominal rigidities worth the name.

Menu cost theory assumes that there are real costs associated with changing the prices of goods and services in terms of some numeraire. It does not explain why the numeraire should be money (the means of payment and medium of exchange) or what the consequences would be of a change in the numeraire. Economics has a hard enough time motivating the use of a transactions medium. It has nothing to say about why the numeraire matters. A theory of the numeraire would swiftly land us in the domain of bounded rationality, and area where conventional economists are loath to tread.

This leaves the economics profession in an uncomfortable position. We believe the numeraire matters, although we cannot explain why (using conventional economic tools). We believe that nominal wage and price rigidities are common and that they matter for real economic performance, but we do not know how to measure these rigidities, nor how stable they are likely to be under the kind of policy regime changes that are under discussion.

(2B) Are the GCC countries individually too small and/or too open to be OCAs and thus to benefit from exchange rate flexibility?

A common theme in most Optimal Currency Area approaches is that an economy that is more open to trade in goods and services will lose less when it gives up its national currency. It should be obvious that this proposition cannot be correct as stated. An economy that is completely closed to trade in goods and services neither gains nor loses from a macroeconomic stabilisation point of view when it adopts a common currency. If there is a relationship between degree of openness and the cost of giving up exchange rate flexibility, the relationship cannot be monotone.

A small open economy cannot use variations in its nominal exchange rate to affect its international terms of trade. If all final goods and services and well as all intermediate goods and services and raw materials are traded internationally, and if the country is small (a price-taker in the global markets), changes in the nominal exchange rate also will not affect the relative price of traded and non-traded goods (the 'real exchange rate'). However, labour services are unlikely to be internationally traded on a scale sufficient to have the domestic price of labour determined as the product of the exogenous world price of labour and the nominal exchange rate. With labour non-traded, nominal wage rigidities are sufficient to give the nominal exchange rate a (temporary) handle on the real economy, through its ability to influence relative labour costs and profitability.

Even the largest of the GCC member states, Saudi Arabia, with its $450bn GDP in 2006 and its 25 million population is a small open economy, that is, a price taker in the international financial markets and, with the exception of oil, where it has some monopoly power, also in the markets for real goods and services (see Table 1). With almost half of the GCC GDP and two thirds of its population, it is more dominant, economically and politically in the GCC than Germany is in the European Union, and in the EMU.

Table 1 here

All the GCC economies are also very open to trade, and increasingly to international financial flows.

Figure 3 below, taken from Kamar and Naceur (2007), shows that openness (measured here as the share of imports to GDP, to avoid some of the distortions that occur for oil- and gas-exporting countries when the more conventional sum of imports and exports as a share of GDP is used as an openness indicator) is high but not rising (except for Saudi Arabia).

Figure 3 here

Interestingly, while all six GCC countries are highly open to international trade (even allowing for the small size of most of them), the amount of intra-trade, that is trade among GCC members is low indeed, as Table 2 makes clear (see Akarli (2007) for a discussion of trade performance and prospects in the GCC). Not only is intra-trade low, it also does not appear to be rising significantly. As expected the GCC share of exports is lower than the GCC share of imports, but except for Bahrain, even the GCC import share is very low. The Bahraini import share figure is likely to be overstated by the fact that other GCC countries are likely to be transhipment countries for this island economy.

Table 2 here

Although the GCC countries collectively (and Saudi Arabia individually) have some influence over their external terms of trade (through their influence on the price of oil), this is unlikely to be an effective macroeconomic stabilisation instrument. But the relative price of traded to non-trade goods (as proxied, for instance, by the real consumption wage) certainly can be influenced by domestic monetary and fiscal policy and the presence of some immobile labour and nominal wage rigidity mean that policy can also influence relative unit labour costs. Potentially therefore, the nominal exchange rate is a stabilisation instrument.

However, there can be little doubt that even the largest of the individual GCC countries is too small and too open to be an OCA. The same can even be argued for the GCC as a whole. Even a monetary union of all GCC members would remain a small open economy, one too small to constitute an OCA. While this is correct, it is also not practically relevant. GCC monetary union is the only monetary union game in town. Nothing else is on offer. I view the situation of the region rather like that of Australia and New Zealand. From an economic point of view, monetary union between Australia and New Zealand would make sense. It certainly would bring significantly greater stability to New Zealand. Even an Anzac monetary union would, however, still be a small open economy, really to small to be an OCA. But since no other monetary union is feasible now or in the foreseeable future, monetary union, even a sub-optimal monetary union, will be better than continued national monetary autarky.

(2C) Are the GCC countries subject to asymmetric shocks that make monetary union among them costly?

There are three distinct issues here. First, how frequent and severe are asymmetric shocks now (without a common currency). Second, how frequent and severe would common shocks be after the countries move to adopt a common currency. Third, are exchange rate flexibility, and monetary autonomy in general, an effective instrument for dealing with asymmetric shocks?

The 'one-size fits all' monetary policy corset inflicted on all members of a monetary union is most costly to a member state if it is subject to especially severe asymmetric shocks or if its structure is such as to cause even symmetric or common shocks to have seriously asymmetric impacts on output and employment. The proposition that a monetary union is more attractive when the structure of production and demand is well-diversified should be seen as a statement about the conditions under which asymmetric shocks are less likely.

It is true that adopting a common currency would deprive individual GCC members of a mechanism for responding to asymmetric shocks. While nominal exchange rate flexibility does not reduce the long-term pain of changing relative costs or prices, it can, if used properly, reduce the transitional costs of achieving the real adjustment that is required. How serious this loss is depends on how well, in practice, this mechanism has been used and can be used.

Asymmetric shocks are certainly possible. While all GCC members are oil and/or gas producers and exporters, there are signficant differences among their production structures. The service sectors, including financial services and tourism are expanding rapidly everywhere, but are much more important in Oman and Quatar than, for instance, in Saudi Arabia. The manufacturing sectors, although small for countries at the level of per capita income and development, are growing and of differing importance across the GCC members.

At the seminar where this paper was first presented, there was some consensus that even though the direct role of oil and gas (and thus of oil and gas prices) as a driver of supply-side shocks and shocks to wealth and disposable income now differed significantly between the six GCC members, the total effect of oil and gas prices, operating also through national and regional consumer and investment demand, was much less differentiated and remained the main driver of economic activity at cyclical and lower frequencies. This consensus is not strongly supported by the available systematic statistical and econometric evidence (see e.g. Erbas, Guerami and Abed (2003), Fasano-Filho and Schaechter (2003), Sturm and Siegfried (2005), Abu-Bader and Abu-Qarn (2006), Kamar and Naceur (2007), Al-Raisi, Pattanaik and Al Raisi (2007)). The empirical evidence on asymmetric shocks and asymmetric transmission for the GCC area is, at best, inconclusive. The most thorough of the empirical studies, by Abu-Bader and Abu Quarn (2006), find2 that while the transitory

demand shocks are typically symmetric, the permanent supply shocks are asymmetric. They also do not find synchronous long-run and short-rum movements in output.

Note that the theoretical underpinnings as well as the identifying assumption used to make causal interpretations of empirical correlations are dubious at best. It is a straightforward implication of the open-economy version of Poole's (1970) model of optimal monetary policy, that under unrestricted capital mobility, a fixed exchange rate provides the optimal adjustment to demand shocks coming from the money demand or money supply side of the economy ('LM shocks'). Most of the empirical work does not distinguish between LM and IS shocks. Furthermore, a common identifying restriction is that demand shocks have no permanent real effects. That is a property of standard macromodels for some monetary shocks (an unexpected, immediate and permanent equiproportional increase in the nominal money stock now and in the future) but not for others (changes in the growth rate of the nominal money stock or changes in short-term nominal interest rates, unless there is superneutrality of money as well). It almost never holds for IS shocks such as fiscal policy shocks or changes in private time preference rates.

The endogeneity of the OCA criteria is potentially important here also. There are two conflicting theories about the link between economic integration and business cycle synchronization (or the likelihood of asymmetric shocks). One view, called the 'the European Commission View' by de Grauwe (1997), holds that closer integration leads to less frequent asymmetric shocks and to more synchronized business cycles between countries (see European Commission (1990)). If monetary union promotes further integration, this would imply that monetary union reduces the likelihood and severity of asymmetric shocks. The other view, called 'the Krugman View' by de Grauwe holds that closer integration implies higher specialization and, thus, higher risks of idiosyncratic shocks. The empirical evidence for the transition countries of Central and Eastern Europe provides rather more support for

the Commission View, although I tend to support the view of Kenen (2001) that the impact of trade integration on shock asymmetry depends on the type of shock.

The belief that national monetary policy, including exchange rate management can be used effectively to minimize, let alone eliminate, cyclical fluctuations in economic activity is an example of the "fine-tuning fallacy". The lags in the effects of monetary policy are long, variable and uncertain; the impacts, at the random lags, are also uncertain. Policy makers can be confident neither about the timing, nor about the magnitude, nor about the persistence of these effects.

It is wise not to be overly impressed with the efficiency of financial markets in general, and with the efficiency of the foreign exchange market in particular. Most of the time, the foreign exchange market is technically efficient, in the sense that large transactions can be made almost instantaneously, at very low transactions costs and with a minimal impact on the exchange rate. Even if the foreign exchange market is technically efficient (in the weak, semi-strong or even the strong sense) and no risk-adjusted pure profits can be made, the price established in this technically efficient market may not convey the right social scarcity valuation. Rational speculative bubbles can cause an asset price like the exchange rate to differ from its fundamental valuation. Departures from technical efficiency also are common. Herding instinct, bandwagon effects and other irrational behaviour, noise traders, panic traders and traders caught in a liquidity squeeze in other financial market make for excessive volatility and sometimes quite persistent misalignments in the foreign exchange markets.

The foreign exchange market and the exchange rate can therefore be a source of extraneous shocks as well as a mechanism for adjusting to fundamental shocks. One cannot have the one without the other. The potential advantages of nominal exchange rate flexibility as an effective adjustment mechanism are bundled with the undoubted

disadvantages of excessive noise and unwarranted movements in the exchange rate, inflicting unnecessary real adjustments on the rest of the economy. It is by no means clear that the advantages of nominal exchange rate flexibility when faced with fundamental asymmetric shocks dominate its disadvantages as a source of extraneous asymmetric shocks.

(2D) Is limited real Resource mobility an obstacle to GCC monetary union?

It is clear that a high degree of real factor mobility can be an effective substitute for nominal exchange rate adjustments in the face of asymmetric shocks. Indeed, factor mobility permits long-term, even permanent real adjustments to asymmetric real shocks, something nominal exchange flexibility cannot deliver.

The real factors whose mobility matters are labour and real capital. Real capital mobility is limited, even when financial capital mobility is perfect. Once real capital (plant, machinery and other equipment, infrastructure etc.) is installed, it becomes hard to shift geographically. There are some examples of 'flying capital', such as Jumbo jets and of mobile real capital (such as fishing vessels), and there have been examples of whole factories being moved over great distances by rail and ship, but as a first approximation, real capital cannot be relocated. New gross investment can of course be redirected across national boundaries, and financial capital mobility can facilitate this process, by permitting the decoupling of national saving and gross domestic capital formation. This is not a process that is likely to be very significant at cyclical frequencies, however. Moving the real capital stock between Kuwait and Saudi Arabia through variations in gross investment is therefore unlikely to be an effective cyclical stabilisation instruments.

A similar point can be made about international labour mobility. Even without legal and administrative obstacles to labour mobility, cross-border labour mobility tends to be limited, especially at cyclical frequencies, because of personal preferences, cultural barriers

and housing markets that make it hard for outsiders to find accommodation. All migration is costly, within as well as between nations. Workers are only likely to move if the fixed, up-front cost of moving is compensated for by a long period of higher earnings in the country of destination. Permanent (or at least persistent) real shocks will trigger labour mobility. Nominal exchange rate flexibility only affects the real economy for a short transition period. To mimic the effect of nominal exchange rate flexibility, net cross-border migration flows would have to be reversible and significant at cyclical frequencies. The GCC countries have in the past managed to use net migration flows from outside the region as a cyclical stabiliser for their domestic economies and residents. It is hard to see that continuing in a world where unskilled and even skilled manual labour are no longer effectively in infinitely elastic supply, as was the case for several decades for the oil-rich Gulf states.

The labour markets of the GCC countries are highly unusual. Foreign labour accounts for around 55% of total employment in Bahrain and for more than 80% in the UAE, Kuwait and Qatar. This labour force has been both flexible and internationally mobile, although not directly mobile between the individual GCC members. The employment of nationals/natives is overwhelmingly (85% for the GCC area as a whole) in the public sector. It is characterised by wage rigidity and other man-made obstacles to mobility and flexibility, although a common language, religion and culture could, should these man-made obstacles be swept away, support a much higher degree of inter-state mobility than has been observed historically.

For the GCC countries, labour mobility thus far has meant movement into and out of each of the GCC countries individually by expatriates from outside the GCC region. There has been very little mobility between workers, native or expatriate, between GCC countries. The expatriate labour force comes from the Indian subcontinent, from other Asian countries

like the Philippines and Indonesia, from other Middle-Eastern and Arab-speaking nations and from Europe and USA.

As long as the GCC countries can attract and expel labour freely from outside the region, this form of labour mobility can be a substitute for the removal of legal and administrative obstacles to cross-border labour mobility by resident workers, native and expatriate, which would the standard way to use labour mobility as a substitute for exchange rate flexibility. It is unclear how long the current migration paradigm of the GCC countries can survive. At some point the 'guest workers' will demand greater rights and will no longer be willing to accept passively to act as the residual in the GCC labour markets. Than moment will come sooner if economic development in the 'source countries' continuous as it has this past decade.

When the GCC countries encounter increasing difficulties and higher costs of attracting temporary labour from outside the region, and when the temporary, expatriate workers acquire more economic and political rights, the efficient use of the GCC-wide stock of labour, native and expatriate, will take on much greater significance. To maintain labour mobility, whether within the GCC members or bilaterally with the world outside the GCC, it will also be increasingly important to take measures to increase the efficiency of the housing market, including the market for rental accommodation. The treatment of the mobility rights within the GCC of guest workers and other temporary workers will to a growing extent determine to what degree labour mobility can act as an effective stabilisation device in a GCC monetary union.

I conclude that cross-border mobility of real capital and of labour among GCC members will have some stabilisation potential, but that its contribution will remain limited unless intra-GCC labour mobility rights are also extended to the large number of guest workers in the region.

Note also, that even within existing currency unions (like the USA or Euroland), net interregional migration flows are not highly quantitatively important at cyclical frequencies. This means one of two things. Either, these existing currency unions are not optimal currency areas or an optimal currency area does not require a high degree of labour mobility at cyclical frequencies.

(2E) Is a strong supranational federal fiscal authority necessary to compensate for the loss of the exchange rate instrument?

The brief answer is 'no' if the macroeconomic stabilisation potential of fiscal policy is concerned. Fiscal stabilisation policy works if and to the extent that postponing taxes, and borrowing to finance the resulting revenue shortfall, boosts aggregate demand. This will be the case either if there is myopia among consumers, who fail to realise that the present value of current and future taxes need not be affected by the timing of taxes, or if postponing taxes redistributes resources from households lower marginal propensities to consume out of current disposable income to households with higher marginal propensities to consume. In overlapping generations models without an operative intergenerational gift motive, postponing taxes redistributes resources from the young to the old and from generations yet to be born to generations already alive. This will boost aggregate consumption in the short run. Intra-cohort heterogeneity (say through the coexistence of life-cycle consumers and current-disposable-income-constrained consumers) can reinforce these effects.

Unless the supranational Federal Fiscal Authority in a currency union has access to the financial markets on terms that are superior to those enjoyed by the national fiscal authorities, there is nothing the Federal authorities can achieve by way of fiscal stabilisation that cannot be achieved equally well by national or by even lower-tier fiscal authorities. National government financial deficits and surpluses, probably mirrored to some extent in

national current account imbalances, are a perfect substitute for supranational fiscal stabilisation.

There have been a number of recent studies trying to determine the redistributive and insurance properties of Federal tax-transfer systems. A study by Bayoumi and Masson (1995), building on earlier work by Sala-i-Martin and Sachs (1992), analyses regional flows of federal taxes and transfers within the US and Canada. They try to distinguish between long-term fiscal flows (the redistributive element) and short-term responses to regional business cycles, which they identify with the stabilisation element. They find that in the US, long-run flows amount to 22 cents in the dollar while the stabilisation element is 31 cents in the dollar. For Canada, the corresponding figures are 39 cents and 17 cents respectively.

While interesting, these studies tell us nothing of relevance to the issue of whether fiscal policy in a North American monetary union could compensate for the loss of the exchange rate instrument from the point of view of macroeconomic stabilisation. The fiscal-federal structure in the US and Canada compensates a state or province for a decline in its income not only when this decline is temporary, e.g. cyclical, but also when it is permanent. It is an instrument of redistribution which happens to have cyclical stabilisation properties to the extent that those who suffer a cyclical decline in their income are likely to be liquidity-constrained. To compensate for the loss of the monetary stabilisation instrument, a tool capable of permanent redistribution is not required, because the nominal exchange rate is not an instrument for long-term redistribution or insurance against long-term loss.

The stabilisation properties of the combined supranational, national and sub-national fiscal system in a monetary union do matter, but the necessary stabilisation can be provided at the supranational, national or sub-national level. In the EU, the European Commission has only a tiny budget amounting to about one percent of EU GDP, yet this is no obstacle to effective fiscal stabilisation policy in the EU, provided the national fiscal authorities (a) are

willing and able to use their national fiscal instruments to stabilise their national economies, that is, they are not subject to binding fiscal financial constraints like those of the Stability and Growth Pact, and (b) are capable of coordinating their budgetary actions to ensure that the combined fiscal stance of the monetary union makes sense for the union as a whole, and in relation to the monetary policy pursued by the monetary union's monetary authority.

It is true that, to the extent that monetary union is part of a wider process of political integration, the political pressures may grow for long-term redistribution among the nations that constitute the monetary union. What the redistribution figures in the studies of Bayoumi and Masson and of Sala-i-Martin an Sachs tell us, is the degree to which the United States and Canada are societies and communities, rather than just economies, and the extent to which notions of national solidarity are translated into cross-border redistributive measures at the level of the monetary union through the tax-transfer mechanism.

(3) Membership conditions for monetary union: the irrelevance of prior nominal and real convergence

I have written elsewhere at length on the nature of the 'membership conditions', such as nominal and real convergence criteria, that should be imposed on countries contemplating joining a monetary union (see e.g. Buiter (1997, 1999, 2005, 2006a) and Buiter and Sibert (2006a,b)). I will only state my main conclusions here.

From a purely economic point of view, the creation of a monetary union by the GCC countries at the earliest possible date makes very good sense. As regards economic stability and financial deepening, it would be in the national interest of each of the 6 GCC member states. Even the largest among them (Saudi Arabia) is too small, too open and too financially vulnerable to constitute an optimal currency area. The unavoidable vulnerability associated with unrestricted international capital mobility makes a national currency a costly and dangerous luxury. The full benefits from international financial integration (superior risk-

sharing through international portfolio diversification, deep and liquid financial markets, a more competitive and efficient financial services sector) can only be reaped by joining a larger currency area.

Membership in the EMU, which is often viewed as a role model or benchmark for other attempts at monetary union, is subject to a number of *nominal convergence criteria*. There are four Maastricht criteria for full membership in EMU.

The first is a pair of fiscal conditions that constrain gross general government debt to be less than sixty percent of (annual) GDP. The second is an interest rate criterion: long-term (ten-year) nominal interest rates on central government debt are to be within two percent of the average in the three EU member countries with the best (lowest) inflation record. The third is an inflation criterion that specifies that the annual inflation rate cannot exceed the average of the three best performing EU member countries in terms of price stability by more than 1.5 percentage points during the year prior to the formal assessment of whether a candidate has met the EMU membership criteria. Finally, there is an exchange rate criterion: the exchange rate has to remain within the nor-mal fluctuation margins provided for by the ERM of the European Monetary System without severe tensions for at least the last two years before the formal assessment. In particular, the candidate must not devalue its currency on its own initiative during the period. The "normal fluctuation margins" have been interpreted by the ECB and the European Commission to be plus or minus 15 percent around a fixed central parity against euro. In addition, there is a requirement that central bank of the candidate country must be independent.

It is my view that, except for the requirement that the Central Bank be operationally independent, none of these criteria make any economic sense. Unfortunately, the GCC has adopted five nominal convergence criteria that closely mimic the unfortunate model of the EMU. They are:

1. Short-term interest rates for each successful applicant will be no higher than 2 percentage points above the average short term interest rate of the three GCC member countries with the lowest short-term interest rates.
2. Inflation for any successful applicant will be no higher than 2 percentage points above the weighted average inflation rate for all six GCC countries.
3. The general government fiscal deficit will be no higher than 3 percent of GDP; and no more than 5 percent of GDP when oil prices are weak.
4. General government gross financial debt will not exceed 60 percent of GDP.
5. Foreign exchange reserve import coverage will be at least 4 months.

There is no exchange rate criterion, presumably because the GCC members assumed they would enter currency union from a fixed US dollar peg. With Kuwait no longer pegged to the US dollars and with a number of other GCC members contemplating dropping their US dollar pegs, that assumption is no longer correct. The minimum foreign exchange reserve criterion (5) makes little or no sense in a world with unrestricted financial capital mobility, but it is unlikely to do any harm. The inflation and (nominal) interest rate criteria (which together imply a short-term real interest rate criterion), should be scrapped. Monetary union is an effective mechanism for achieving inflation convergence. Requiring prior inflation convergence is putting the cart before the horse. It most likely reflects a form of unnecessary paternalism - a desire to prevent a would be monetary union member from putting itself at a competitive disadvantage by joining the monetary union with a rate of inflation well above the average of the existing union members.

Achieving fiscal sustainability prior to joining a monetary union is highly desirable, perhaps even essential, from the perspective of the national interest of each candidate country. Whether it is necessary to impose it 'externally' as a pre-condition of membership, rather than allowing a country to join a monetary union even though its fiscal house is not in order, and letting that country live with the consequences of its fiscal non-sustainability, is something on which I continue to be in two minds. Fiscal sustainability is not, however, synonymous with the achievement of the two Maastricht fiscal criteria. They are neither necessary nor sufficient for fiscal sustainability (or for macroeconomic stability) for the EU. They are ludicrously inappropriate for the oil-rich GCC members.

For the oil-and-gas-rich GCC members, the fiscal sustainability concerns that prompted the Maastricht debt and deficit criteria are quite irrelevant. First, typically the state is a massive gross and net financial creditor. Adding to this the present discounted value of future oil and gas revenues net of extraction costs (the value of oil and gas wealth held underground) makes gross general government debt an irrelevant portfolio entry. The general government (central, state/provincial and municipal) government, which excludes the central bank, is a spectacularly inappropriate unit to consider for fiscal sustainability analysis.

It is absolutely essential to specify fiscal-financial norms and criteria, and to collect data, on all assets and liabilities, outright and contingent, of the state – the sovereign. This means that we need to consolidate the balance sheet and flow-of-funds-accounts of the conventional general government sector, both with the accounts of the central bank (which often hold massive external assets and foreign exchange reserves) and with the accounts of the entire panoply of publicly owned and controlled financial entities, including sovereign wealth funds, other state-owned investment funds and all other institutions that hold assets owned or controlled by the state or are, *de jure or de facto,* subject to a state guarantee. Any fiscal sustainability criteria that do not fully allow for the assets held by all the publicly owned and publicly controlled wealth funds/investment funds, regardless of whether they have a cyclical stabilisation mandate, a long-term development mandate or an intergenerational mandate, are bound to be useless at best, positively misleading at worst. There are further complications associated with fiscal sustainability analysis in the GCC countries because the line between public or state wealth and the wealth owned and controlled by the ruling families is frequently rather fuzzy, but that is no reason for adopting criteria like the ones currently proposed, with are uninformative under any conceivable set of circumstances.

Achieving durable fiscal sustainability is the only truly *necessary* financial-economic condition for joining a monetary union. It should also be a *sufficient* condition for membership. When a country joins a monetary union, a decision I take to be irrevocable, it gives up its discretionary access to seigniorage and its ability to impose both the anticipated inflation tax and the unanticipated inflation tax.[4] Such a reduction in the national crisis management arsenal should only be contemplated if there is confidence that politically mandated expenditure levels will be financeable with the available taxes and other regular sources of revenue, now and in the future.

Nominal convergence, interpreted as convergence of a monetary union candidate nation's inflation rate, prior to membership, to its post-joining, *monetary union membership equilibrium inflation rate* would be helpful for the country considering joining, but not essential. The monetary union equilibrium inflation rate is the union-wide target inflation rate (assuming there is one) plus any country-specific Balassa-Samuelson real exchange rate appreciation premium (see Buiter (2005), Buiter and Sibert (2006a,b)). It is somewhat problematic, from the point of view of achieving price stability rather than just achieving monetary union with a common underlying inflation rate, that the GCC has not adopted a numerical inflation target for the monetary union as a whole. Admittedly, the EMU when it started also did not have an absolute inflation anchor, since it only required that during the year preceding the examination for membership, a candidate country's inflation rate could not exceed by more than 1.5 percentage points the unweighted arithmetic average of the inflation rates of the three best performing EU member states in terms of price stability. However, the GCC does not have among its members the monetary equivalent of the Bundesbank and its allies in the Netherlands and Austria, which provided a de-facto low

[4] The anticipated inflation tax, discussed earlier, is the ability to reduce the real value of the stock of base money through inflation. The unanticipated inflation tax is the de-facto capital levy the monetary authorities can impose on holders of nominally denominated fixed-rate government debt, through an unanticipated increase in the rate of inflation and the associated increase in long-term market nominal interest rates.

inflation anchor for the EMU, even before the ECB Governing Council adopted its formal inflation target.

No monetary authority should ever be asked to pursue more than one nominal target. The simultaneous pursuit of three nominal targets (the case for the EMU) greatly enhances the likelihood that a major financial accident will happen before a country can get all three of its ducks in a row. The two nominal targets/ceilings for the GCC monetary union (inflation and the short-term nominal interest rate) and the minimum threshold for foreign exchange reserves are somewhat less onerous than their EMU counterparts, but are still an unnecessary distraction. As soon as fiscal sustainability (and preferably also inflation convergence (properly defined)) is achieved, a *date* (for starting the GCC monetary union) and a *set of six rates* (the irrevocable conversion rate of the six national currency and the Khaleeji) should be announced. This will give the markets the focal points they require to achieve an orderly convergence of the market exchange rates to the required conversion rates at the right time.

Candidates should be allowed to have any exchange rate regime, from a fixed rate with the US dollar to a free floating exchange rate, between the time the 'date and rate' are announced and the time their currencies are locked irrevocably to the Khaleeji. If they opt to float after the announcement date, they could be required to pursue continued convergence to their post-monetary union joining date equilibrium inflation rates. If on the announcement date they choose to peg the exchange rate immediately at the level of the eventual conversion rate, they should not be given any additional nominal target. An exchange rate criterion in the spirit of ERMII would be a distraction at best, and an invitation to unnecessary instability at worst.

Finally, even though the Maastricht criteria does not contain any real or structural convergence criteria for monetary union, the ECB and the European Commission constantly press the need for prior real convergence. They are wrong. Real convergence, defined as

convergence of productivity levels, real per capita income, structures of production and employment, financial markets and institutions, quality of regulatory and supervisory institutions, is not necessary prior to Khaleeji adoption. Indeed, the weaker the domestic monetary and financial institutions and markets, the stronger the case for early adoption of the common currency.

(4) Political and constitutional aspects of monetary union

Monetary union is not just a technical economic, financial or monetary issue. It represents a very significant constitutional and political change (see Buiter, Corsetti and Pesenti (1998), Eichengreen (1996), Fidrmuc and Horvath (1999), Gilbert (2004), Kenen (2001), Kenen and Meade (2008) and Tietmeyer (1998)). Monetary union raises two distinct but related political and constitutional issues: first the legitimacy of the surrender of national sovereignty involved in joining a monetary union, and second the accountability of the monetary policy makers to the legitimate political authorities in the monetary union and its constituent member states.

(4A) National sovereignty

Monetary union represents a surrender of national sovereignty to a supranational entity. This is true even for the full, formally symmetric monetary union. A central bank is a key agent of the state. The ability to issue legal tender is an expression of the power of the state to use physical force, to coerce, to prescribe and proscribe behaviour. The common use of the term 'seigniorage' to refer to the revenues accruing to the state through its monopoly of legal tender is a reminder of the fact that the power to issue legal tender is a manifestation of the state's *sovereign* power – its ability to tax. A nation that joins a monetary union surrenders its national sovereignty in the monetary domain and becomes subject to a

supranational form of sovereignty. The nation state is weakened by this surrender of monetary sovereignty. I am not expressing a view here on whether his would be a good thing or a bad thing for the GCC member states. I am merely stating a fact.

The sober reality of this partial surrender of national sovereignty is complicated by the strong symbolic significance often attached to the national currency. The irreducible minimal list of symbols that define a nation as a nation state include a national currency, along with an anthem, a flag and a football team. The emotions that are kindled when the abolition of the national currency is under discussion go beyond what can be rationalised in terms of concerns about the loss of national discretion in the use of seigniorage, the inability to levy the anticipated and unanticipated inflation taxes, or the loss of the national monetary stabilisation instrument (see e.g. Gilbert (2004)).

These constitutional issues have been clear in the case of EMU. Economic and Monetary Union in Europe is part of an ongoing process of economic and political integration in Europe, and not an isolated, 'technical', monetary arrangement. In this it differs from arrangements like the classical gold standard, which flourished between 1880 and 1914, the heyday of European imperialism and nationalism. EMU is foremost a major step on the road to 'ever closer union' in Europe. It represents the opening of a new chapter in the European federalist agenda, a significant transfer of national sovereignty to a supra-national institution.

Like EMU, monetary union among the GCC member states would involve a transfer of national sovereignty to the central or federal level. Unless this transfer of power is perceived as legitimate by the citizens of the GCC countries, this transfer of authority to the supranational GCC central bank will be challenged by those who perceive themselves to be adversely affected by it, or by political opportunists prepared to use it as a means of leveraging popular misgivings in the pursuit of possibly quite unrelated objectives.

In the past, political processes leading to the creation of a common currency, including a supranational central banking system with centralised authority, have survived only when, at the time of their creation, a stronger and more legitimate federal government structure was in place than is currently the case in the EMU area. A fortiori, past political processes resulting in the creation of a common currency have been supported by a level of political integration that goes far beyond the level of effective political integration (and indeed economic integration) that currently exists among the GCC member states. The EU has, at present, only a very weak, proto-federal set-up, but it does have a Parliament, a Court of Justice, precedence of EU law over national law in the EU's areas of competence, a proto-executive, made up of the Commission and the Council of Ministers, and a small but effective supranational bureaucracy, headed by the European Commission, with important regulatory powers. It does not amount to a supranational Federal government structure, but it is also far more than a set of intergovernmental arrangements.

So far, the relations between the member states of the GCC appear to be more in the tradition of intergovernmentalism that of supranationalism. The GCC central bank would not be supported by robust supranational political legitimising structures. For that reason alone, I very much doubt it would survive. Creating a monetary union only to watch it collapse again would be costly and highly disruptive.

The track record of past monetary unions is instructive. For instance, monetary union in the USA was not complete until long after political unification. While one can make allowances for the war period (1776-1783) and for the Confederation period (1783-1789), even the USA monetary union created with the signing of the Constitution in 1789, was far from complete. While the constitution gave the Congress the monopoly of coinage and of the regulation of its value, the states continued to be able to charter commercial banks and to regulate their note issuance. Until the creation of the Federal Reserve System in 1914, the

USA did not have a central bank, although the First Bank of the U.S. (1791-1811) and the Second Bank of the U.S. (1816-`836) can perhaps be characterised as proto central banks. A monetary union with a centralised authority really did not exist in the USA until the Banking Act of 1935.

Italian monetary unification occurred in 1862, with the introduction of a new unified coinage system, based on the Sardinian lira, after political unification had been completed in 1861. Centralisation of note and coin issuance and of other central bank functions did not occur until 1893.

The history of German monetary and political union in the 19th century is open to two very different interpretations. The political establishment of the German Reich in 1871, following the Franco-Prussian war, preceded the coinage acts of 1871 and 1873, which unified coinage throughout the Reich and introduced the mark and the unit of account. In 1875, the new Reichsbank (a relabeling of the Prussian bank) became the de facto central bank of the Reich. In practice, in monopolised the issuance of notes. In 1875 Germany went on the gold standard (Germany used the Franco-Prussian War indemnity of 1870 to finance the creation of a gold standard - an early example of the use of Regional Funds to facilitate monetary integration perhaps). This sequence of events suggests that political unification in Germany preceded monetary union.

Against that, the customs union (Zollverein) of 1834 was followed by the Munich Coin Treaty of 1837 and the Dresden Coinage Convention of 1838, which created a double currency standard among all members of the Zollverein. most members of the Deutscher Bund. The 1857, the Vienna Coinage Treaty joined Austria to the Dresden arrangement. On this reading, most of the key steps towards German monetary unification were taken before political unification. It should, however, be noted, that Austria left the Vienna arrangement in 1867 following defeat in its war with Prussia. It did not join the German Reich in 1871.

German political re-unification in 1990 coincided with monetary union between the former West and East Germanies (GEMU). This is not an event with any clear implications for EMU, since GEMU was little more than a take-over by West Germany of a near-financially bankrupt and utterly politically and morally bankrupt East Germany.

There have been exceptions to the rule that political unification precedes monetary union. Even if one ignores the ambiguous German 19th century experience, the seven provinces that formed the Dutch Republic established a monetary union at the end of the 16th century, with only the weakest (con)federal political institutions and with almost completely decentralised fiscal authority. It lasted for two centuries, until the conquest of the Republic by Napoleon (Dormans [1991]).

Belgium and Luxembourg were in a monetary union from 1922 until they were both absorbed into Euroland in 1999. While this association is more akin to a union between an elephant and a mouse (and belongs in the France-Andorra, France-Monaco, Italy-Vatican City, Italy-San Marino, Switzerland-San Marino category), it is interesting that monetary union did not lead to far-reaching political integration between Belgium and Luxembourg.

Slightly different in nature are the currency unions adopted by contiguous former colonies following independence. The CFA Franc Zone, set up in 1959 by thirteen former French colonies in west and central Africa, survives till this day, although the CFA franc was devalued by 50 percent in 1994. The survival of the arrangement appears to owe much to the continued involvement of (and budgetary transfers from) France. The East Caribbean Currency Area, consisting of 7 former British colonies, has survived since 1966, unlike the East African Currency Area between Kenya, Uganda and Tanzania which lasted only from 1966 until 1977.

Monetary unions that occurred without prior political unification and that did not subsequently lead to political unification, have not survived. Examples include the following.

The Latin Monetary Union among France, Belgium, Switzerland and Italy, which lasted (with some temporary suspensions of convertibility by individual members) from 1865 until, de facto, World War I. The official time of death was 1927.

The Scandinavian monetary union among Sweden, Denmark and Norway, which lasted from 1873 till de facto, World War I, although the arrangements was not officially put out of its misery until 1924.

Attempts by 'successor states' to maintain monetary union following the break-up of a larger political entity, have been short-lived, with the possible exception of the 'monetary union' between the UK and Ireland (a currency board arrangement for Ireland, rather than a "symmetric" monetary union), which lasted from 1922 till 1979.

Examples of spectacular failures to maintain a common currency following a political break-up include the successor states of the Austro-Hungarian Empire following the defeat of the Habsbourg empire in World War I; the ill-fated rouble zone among 11 CIS members between 1991 and mid-1993, following the dissolution of the Soviet Union; and the collapse of the monetary union among the successor states to the Federal Republic of Yugoslavia, which dissolved in 1991. All three political break-ups lead to hyperinflations.

Czechoslovakia broke up as a political union on January 1, 1993; the Czech-Slovak monetary union collapsed on February 8, 1993 (Fidrmuc and Horváth (1999)). Here the political and monetary break-up was not accompanied by hyperinflation.

I have considerable sympathy for the long-standing German position that, in the context of European Economic and Monetary Union, further political integration should have accompanied (or even preceded) monetary union. On the other hand, the whole European integration experiment, from the Coal and Steel Community on, has been a political wolf dressed in economic sheep's clothing. It has been successful so far, and it may well continue to be so.

(4B) Accountability of the GCC monetary authority following monetary union

Monetary policy today is made by operationally independent central banks run by experts, not by politicians. The targets or objectives of the central bank should, of course, be politically determined. Once set, they should be very hard to change, lest the opportunistic political manipulation of the objectives of the central bank ends of re-creating the same problems that exist when the monetary policy instrument is under the direct control of opportunistic politicians.

In any society where the rulers are accountable to the citizens, the delegation of policy making powers to unelected officials, especially if the majority of these officials are likely to be foreign nationals, will only be accepted as legitimate by the citizens, if the independent central bank is accountable to a body viewed as representative and legitimate. Accountability requires openness and transparency. The objective or objectives of the central bank must be clear and unambiguous. This is essential if the public and the legitimate political authorities are to be able to judge the performance of the central bank.

The need for openness and transparency also applies to the procedures of the central bank, if only to ensure better informed financial markets. Individual voting records of the members of the central bank's decision making Council should be in the public domain. So should the minutes of its meetings. More elaborate and in-depth analyses of the policy-making Council's thinking (like the Bank of England's quarterly Inflation Report and inflation forecast) should be published regularly. An independent body (like the Non-Executive Directors of the Court of the Bank of England) should vet the procedures of the central bank and its policy-making Council on a regular basis, and should have the power to make binding recommendations.

At the core of effective accountability is the need for the Council members, collectively and individually, to justify themselves before a duly constituted representative and legitimate committee that speaks for the entire GCC membership. In the US, the Governor of the Fed appears periodically before the Congress. In Euroland, the Subcommittee on Monetary Affairs of the European Parliament is charged with the political supervision of the ECB. In the UK, committees of both the House of Commons and the House of Lords call Monetary Policy Committee members to appear on a regular basis to explain their actions.

(5) Conclusion

I conclude that there is an economic case for GCC monetary union, but that it is not overwhelming. The lack of economic integration among the GCC members is striking. Without anything approaching the free movement of goods, services, capital and persons among the six GCC member countries, the case for monetary union is mainly based on the small size of all GCC members other than Saudi Arabia, and their high degree of openness. Indeed, even without the creation of a monetary union, there could be significant advantages to all GCC members, from both an economic and a security perspective, from greater economic integration, through the creation of a true common market for goods, services, capital and labour, and from deeper political integration.

The political arguments against monetary union at this juncture appear overwhelming, however. The absence of effective supranational political institutions encompassing the six GCC members means that there could be no effective political accountability of the GCC central bank. The surrender of political sovereignty inherent in joining a monetary union would therefore not be perceived as legitimate by an increasingly politically sophisticated citizenry. I believe that monetary union among the GCC members

will occur only as part of a broad and broadly-based movement towards far-reaching political integration. And there is little evidence of that as yet.

Table 1

Population and GDP in the GCC, 2006

	2006 GDP (US $ bn)	Share of 2006 GCC GDP (%)	2006 population	Share of 2006 GCC population (%)
UAE	168	17.4	4,000,000	10.9
Bahrain	178	18.5	715,000	1.9
Saudi Arabia	450	46.7	25,000,000	67.5
Oman	36	3.7	3,200,000	8.7
Quatar	42	4.4	850,000	2.3
Kuwait	90	9.3	3,200,000	8.7
	964		37,065,000	

Table 2

GCC share of exports and imports for individual GCC Countries

(%)

	Bahrain		Kuwait		Oman		Qatar		Saudi Arabia		UAE	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
1970	#N/A	#N/A	#N/A	0.4	0.5	12.8	#N/A	8.2	4.9	3.7	#N/A	4.4
1971	#N/A	#N/A	#N/A	0.3	0.4	17.8	#N/A	5.9	3.9	4.7	#N/A	4.3
1972	#N/A	#N/A	#N/A	0.5	0.2	20.8	3.4	7.8	2.9	5.1	#N/A	6.1
1973	#N/A	40.3	3.2	0.5	0.4	25.0	2.3	9.2	2.4	5.8	#N/A	4.9
1974	17.0	61.8	1.3	0.5	0.1	22.9	#N/A	8.7	2.3	7.5	#N/A	5.1
1975	20.9	54.1	2.9	0.4	0.2	20.3	#N/A	8.0	2.3	6.9	#N/A	4.0
1976	32.3	44.1	5.4	0.3	0.2	22.1	0.0	10.2	2.0	12.0	2.5	5.2
1977	37.3	46.6	5.9	0.1	0.2	17.9	#N/A	7.9	2.3	6.7	2.0	4.9
1978	#N/A	45.4	5.0	0.5	0.4	18.7	0.0	2.9	2.5	1.0	2.3	3.1
1979	29.7	51.9	3.3	1.2	0.3	17.9	3.2	3.0	2.3	1.4	2.5	8.4
1980	24.5	58.2	4.7	1.3	0.3	22.2	2.8	5.1	2.1	1.1	2.4	5.8
1981	28.2	61.2	5.1	0.8	0.0	24.5	2.2	4.0	2.6	1.4	2.6	10.1
1982	26.9	49.5	8.0	1.0	0.0	21.6	2.2	3.2	3.0	1.4	3.6	6.9
1983	24.3	44.4	5.5	1.4	0.0	17.9	2.2	3.0	3.4	1.3	3.6	6.4
1984	23.6	48.5	4.0	2.2	0.0	18.7	2.2	3.3	4.2	1.3	3.6	7.6
1985	23.6	48.5	3.8	1.9	0.0	22.8	2.2	3.2	5.2	2.1	3.6	7.0
1986	23.6	43.9	1.7	3.5	49.2	19.0	7.1	3.6	6.5	2.0	5.2	6.0
1987	23.6	49.4	1.4	5.7	53.7	21.9	6.9	6.2	7.0	1.8	4.6	5.6
1988	9.4	45.0	1.9	7.5	55.3	23.0	9.0	7.1	6.5	2.1	5.7	4.6
1989	9.4	45.2	1.7	7.4	62.5	27.7	8.6	8.7	7.8	2.4	5.0	5.6
1990	5.8	53.1	1.6	0.0	56.8	26.5	5.5	8.6	6.7	1.8	3.7	6.3
1991	12.0	41.9	1.8	0.0	1.5	29.0	5.6	10.0	6.7	1.4	4.4	4.5
1992	12.5	40.2	1.7	0.0	9.5	31.0	5.7	10.6	6.0	1.7	5.9	3.7
1993	14.4	35.8	1.5	6.7	10.8	32.3	6.1	14.4	6.5	2.2	7.0	4.1
1994	10.7	39.3	1.6	9.1	11.7	32.3	6.7	14.0	6.7	2.8	7.6	4.1
1995	10.2	44.3	1.8	9.7	12.1	28.6	6.6	14.4	7.2	2.8	6.7	5.1
1996	9.5	46.6	1.3	9.6	10.0	27.8	5.1	10.2	7.2	3.2	6.2	4.7
1997	6.1	46.8	1.3	10.4	11.6	29.0	3.9	12.5	7.5	3.1	6.1	4.7
1998	6.9	27.9	2.0	9.4	16.7	28.9	4.7	15.4	8.6	3.4	8.7	4.9
1999	6.3	28.0	1.9	10.4	12.5	32.7	3.7	17.6	6.8	3.9	7.9	5.8
2000	5.2	33.9	1.2	14.0	10.1	33.2	5.7	14.9	4.2	2.9	6.1	4.8
2001	5.1	35.5	1.6	13.0	10.0	33.2	4.0	12.0	4.8	2.9	6.5	4.7
2002	5.8	34.4	1.6	11.1	11.6	33.2	6.4	15.4	5.4	2.6	6.8	4.8
2003	6.4	34.8	1.8	9.6	10.6	27.8	4.8	14.9	4.9	2.5	5.2	5.1
2004	7.5	37.9	1.8	10.3	9.4	27.7	5.1	18.2	4.9	4.9	5.1	3.7
2005	8.1	42.5	1.6	11.3	9.3	29.2	4.3	13.9	4.7	4.6	4.9	3.7
2006	8.0	43.7	1.6	12.5	8.2	29.3	4.0	11.1	4.8	4.7	4.9	3.9

Source: International Monetary Fund

Box 1. The current exchange rate regimes of the GCC countries

United Arab Emirates: In January 1978 the UAE dirham was officially pegged to the IMF's SDR. In practice it is pegged to the US dollar for most of the time. Since November 1997, the dirham peg to the US dollar has not changed.

Bahrain: The Bahraini dinar has been pegged to the US dollar since 1980.

Saudi Arabia: In June 1986, the Saudi riyal was officially pegged to the IMF's SDR. In practice, it is pegged to the US dollar.

Oman: Since 1973 the Omani rial has been pegged to the US dollar, with a single devaluation of the rial in 1986.

Quatar: In March 1975, the riyal was officially pegged to the IMF's SDR. In practice, it has been pegged to the US dollar with a fixed exchange rate since 1980.

Kuwait; From March 1975 to January 2003, the Kuwaiti dinar was pegged to a weighted currency basket. From January 2003 till May 2007, the dinar was pegged to the US dollar with margins of ±3.5%. Since May 2007, the Kuwaiti dinar is pegged to a basket of currencies. The exact composition of this basket has not been made public. According to the Central Bank of Kuwait, *"the determination of the exchange rate of the Kuwaiti dinar (KD) against the US dollar became based on a basket of major world currencies reflecting the foreign trade and financial relations of the State of Kuwait, and in a similar way to the policy applied before the 5th of January 2003."*

Figure 1

Inflation in the GCC member countries

Average Consumer Prices, Annual percentage change

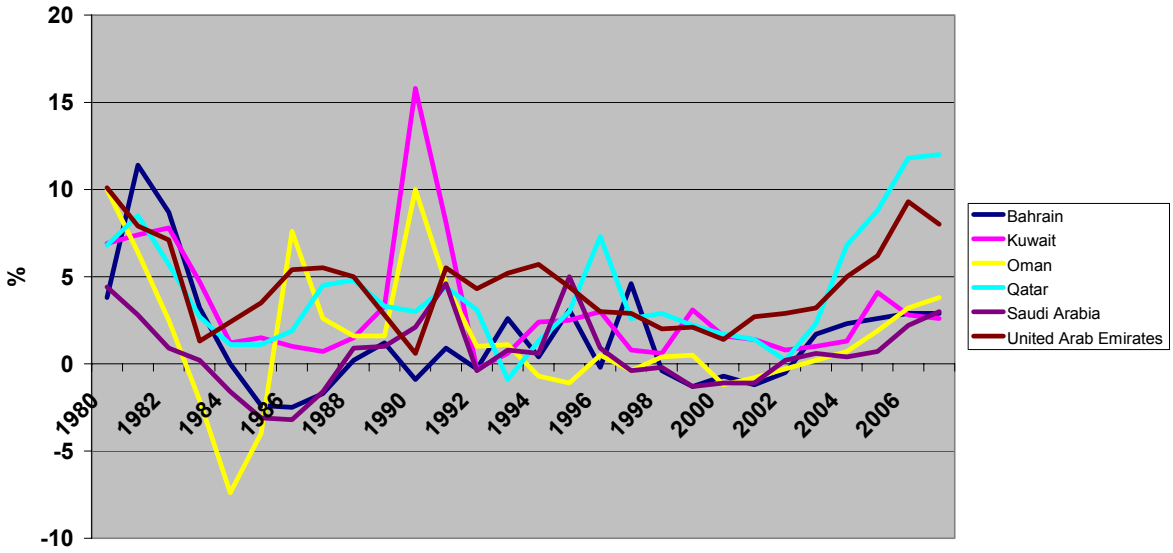
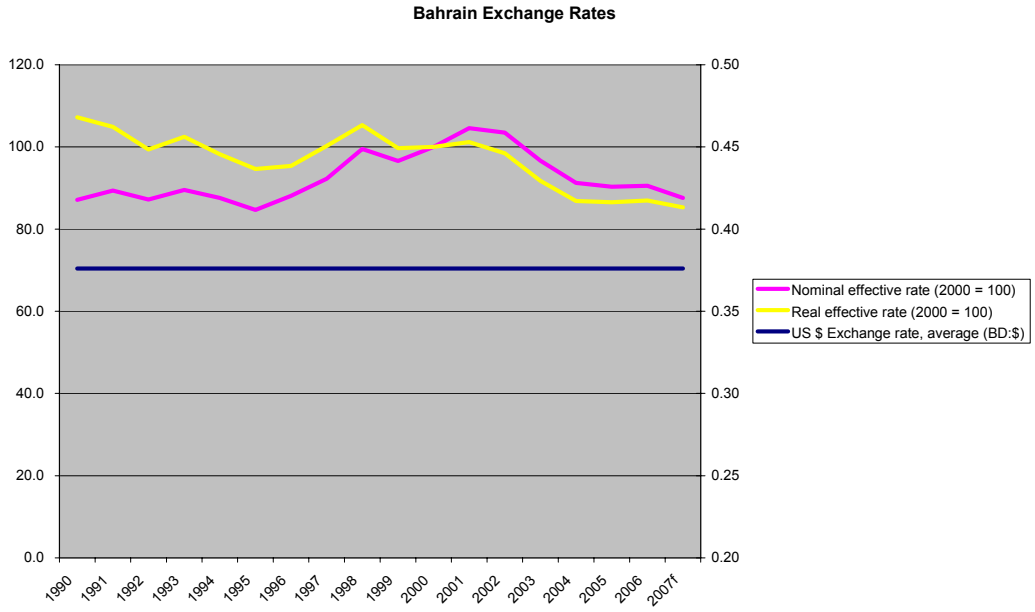
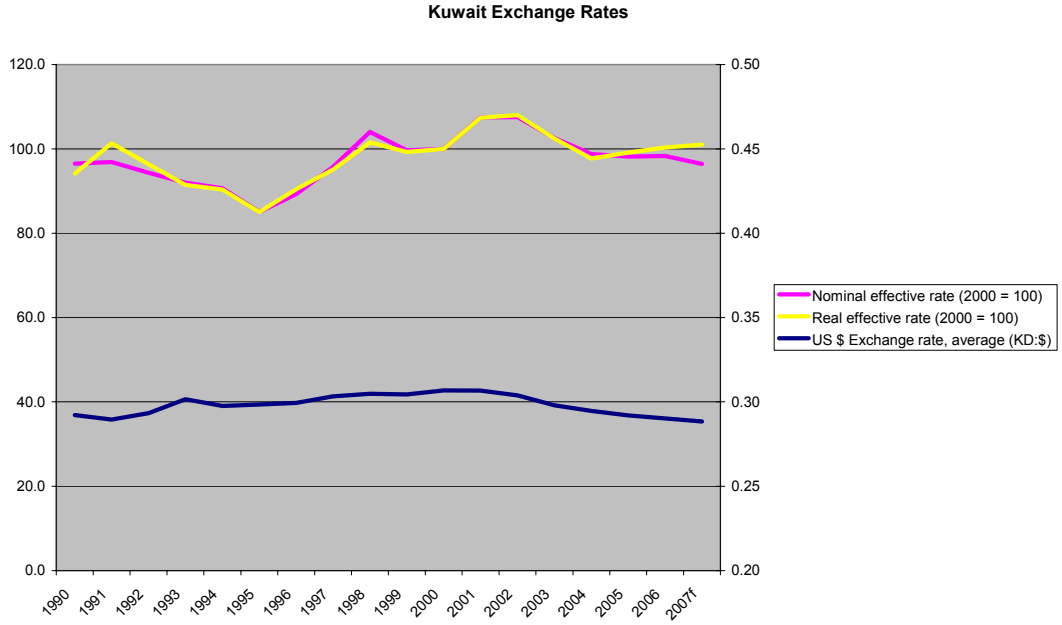
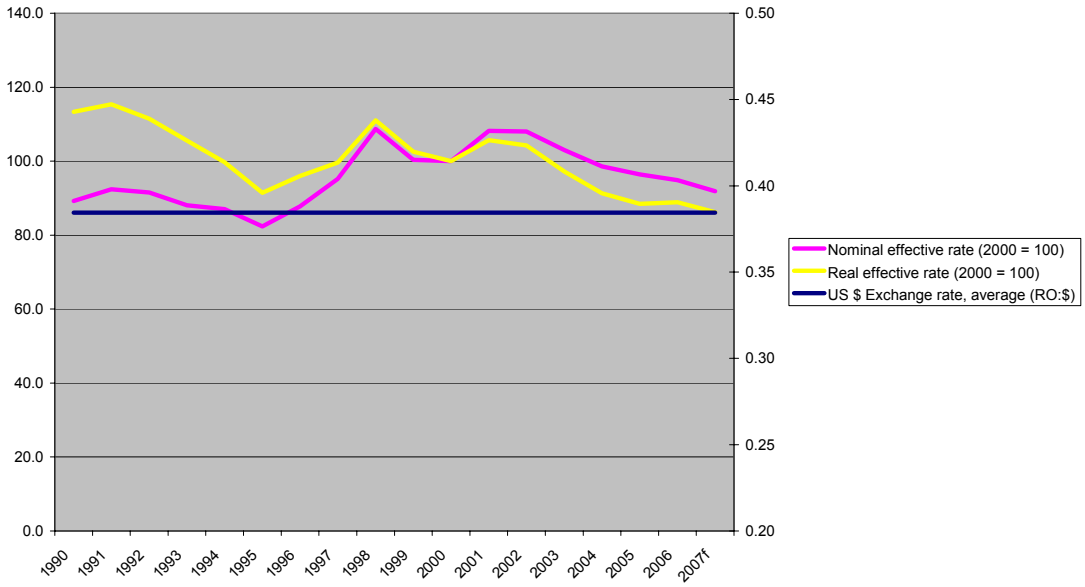


Figure 2
Exchange rates for the six GCC countries

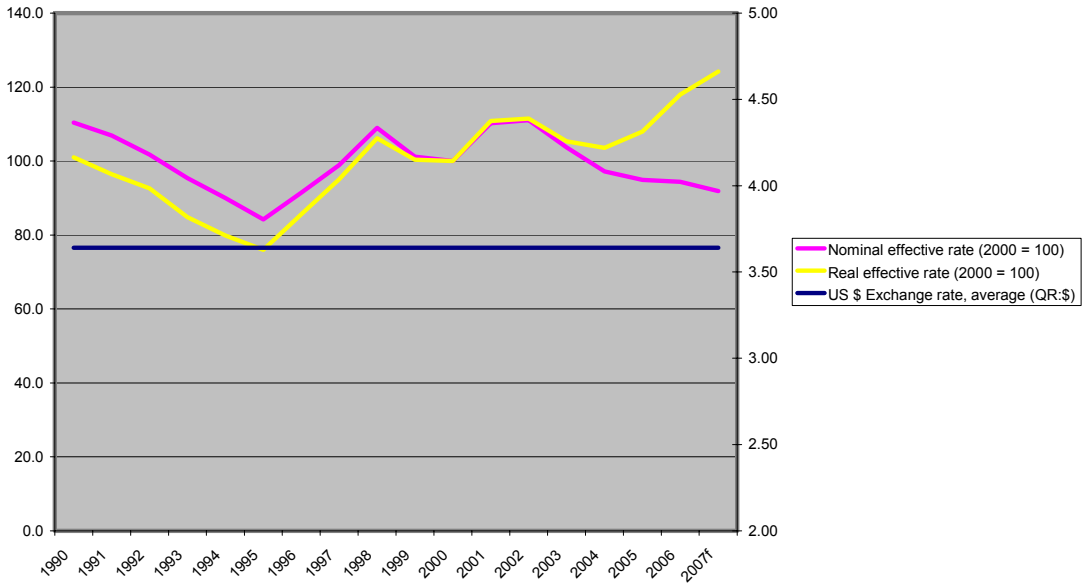




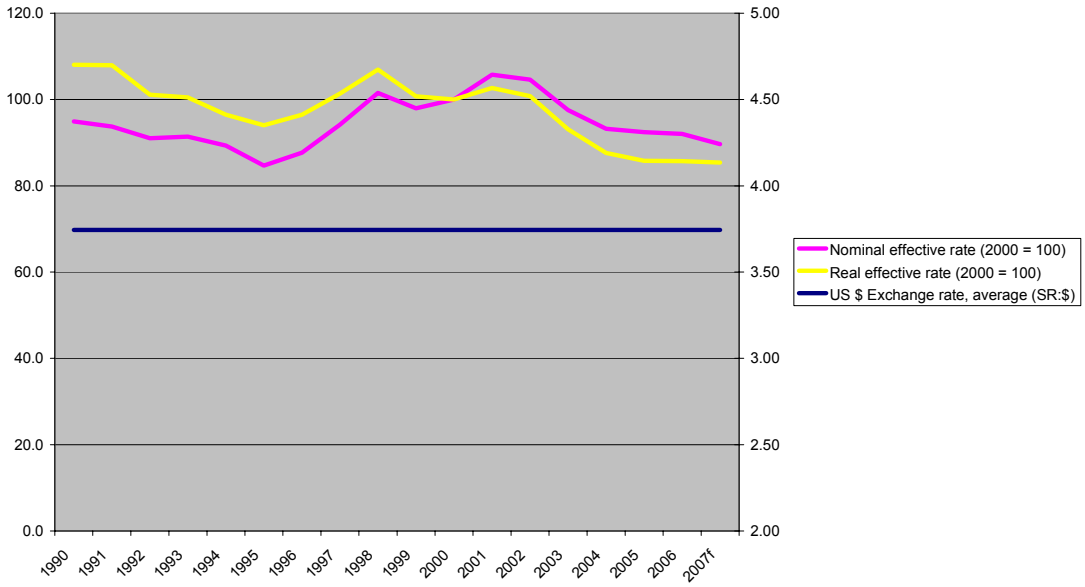
Oman Exchange Rates



Qatar Exchange Rates



Saudi Arabia Exchange Rates



UAE Exchange Rates

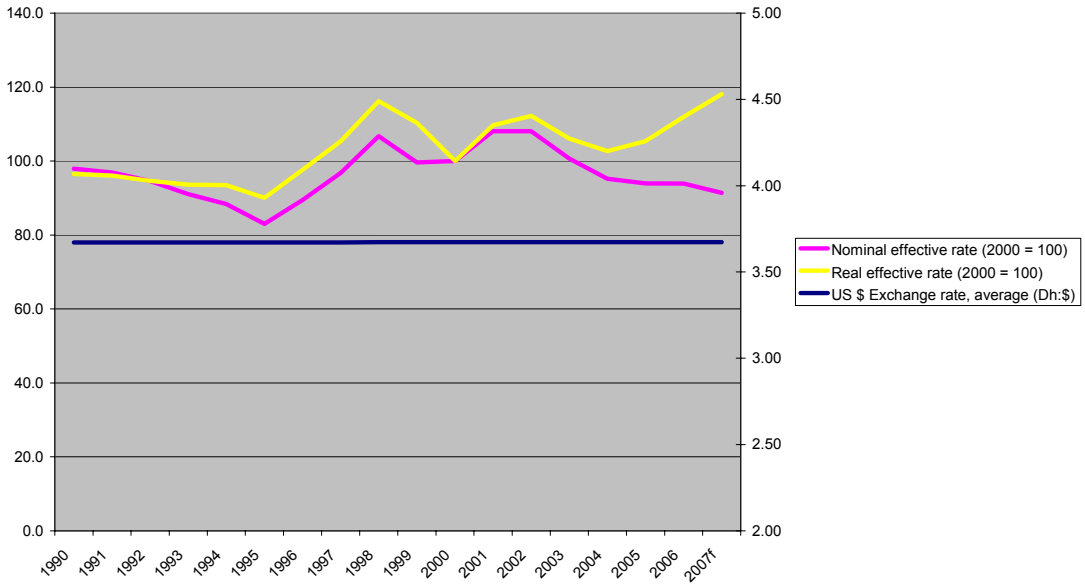
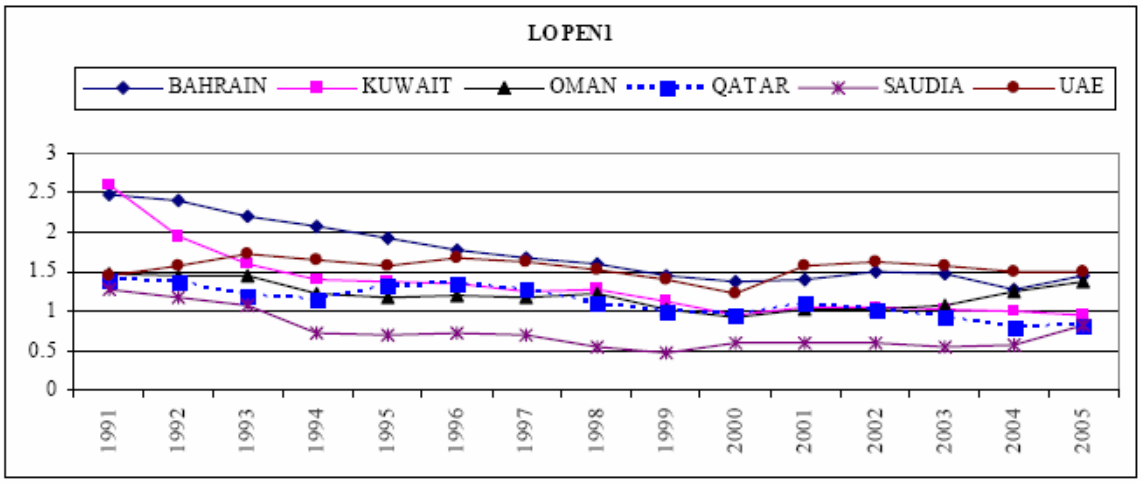


Figure 3

Imports as a share of GDP for the GCC countries (ratio)



Source: Kamar and Naceur (2007)

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