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Introduction

The establishment of a monetary union, such as the contemporary European Economic and Monetary Union (EMU), involving a single currency managed by a union-wide central bank, has considerable consequences for the control over economic policy by the individual nation-states. By definition within this framework an independent national monetary policy is no longer possible, as control over interest rates is exerted by the newly-created supranational central bank. However, the monetary arrangements may also imply changes in other policy areas, for example in the field of fiscal policy. The scope for, and constraints on, national fiscal policy initiatives with the framework of monetary union are therefore the main concerns of this paper. We are interested in particular in the situation of a small open economy (SOE) which trades primarily with other members of the union. Austria, for example, had 56.0 percent of its trade with the rest of the Euro-zone in 1999, 62.8 percent of its trade with the European Union (EU), and 73.9 percent of its trade with the EU plus the five leading candidates for eastern enlargement[1]. If Canada were to join a North American currency union (NAMU) with the USA, this would account for 87.1 percent of Canada's trade and including Mexico, 87.6 percent.

We develop a simple macroeconomic model which aims at incorporating the most important features of the economic policy environment in a currency union, including the interest rates set by the union central bank, a macroeconomic production function, the distribution of income, and the financial balances of the domestic economy. Within this framework the implications of a currency union for fiscal policy, the effects (in the European case) of the infamous *Pact for Stability and Growth*, and the determinants of national levels of tax quotas (and implicit expenditure quotas) can be analysed

Simple national income accounting for the domestic and foreign economy

The analysis starts by developing the supply-side of a simple macroeconomic model (*Smithin*, 1997, 1999) which builds on a 'macroeconomic' production function:

$$(1) \qquad Y(t) = A(t)N(t)$$

where $Y(t)$ is aggregate output, $A(t)$ is the average product of labour, and $N(t)$ is aggregate labour input. However, the output available for sale in period (t) is assumed to be actually produced only in the previous period $(t-1)$. This is intended to illustrate the fact that production and finance inevitably take time and that this should be a basic feature of any model of 'monetary production'. Output is produced currently on the basis of expectations of *future* sales receipts, and the cost of financing must be adequately taken into account in any calculation of total costs.

Under these assumptions, the income-based breakdown of current GDP for the domestic economy can be written as:

$$(2) \qquad P(t)Y(t-1) = [1+k(t-1)][1+i(t-1)][W(t-1)\,N(t-1)][1+T(t-1)]$$

where $k(t-1)$ is the rate of profit generated by economic activity in the previous period (and actually realised in the current period), $i(t-1)$ is the nominal interest rate prevailing in the last period, and $W(t-1)$ is the nominal wage rate in that period. All incomes are after taxes, and $T(t-1)$ is the average tax rate. We therefore differentiate between three types of income in the functional distribution. These are profits, which are the rate of return to entrepreneurial capital, interest rates, or the rate of return to financial capital, and the wages of labour. Notice that the rate of interest is treated as an entirely different concept from the rate of profit (*Smithin,* 2001A). Interest is the rate of return for lending financial resources, and is basically determined by the monetary authority. Profits are the return to entrepreneurs and are the *outcome* of economic activity. Interest rates and profits are competitive with each other in terms of income distribution.

If we now use a forward-looking version of Equation (2), take logarithms, and use Equation (1) we obtain:

$$(3) \qquad p(t+1) = k(t) + i(t) + T(t) + w(t) - a(t)$$

Lower case symbols stand for the logarithm of the corresponding upper case variables (e.g. $w = lnW$), and $k(t)$ is the expected rate of profit, with $p(t+1)$ being the logarithm of the nominal price level expected in period $(t+1)$. A similar expression must also hold true for the 'foreign' economy, where an asterisk (*) represents a foreign variable.

$$(4) \qquad p^*(t+1) = k^*(t) + i^*(t) + T^*(t) + w^*(t) - a^*(t)$$

Equations (3) and (4) contain two major macroeconomic policy variables, namely nominal interest rates, i and i^*, and average tax rates, T and T^*, respectively. Subtracting Equation (4) from Equation (3) and re-arranging yields the following general expression illustrating the 'room for manoeuvre' for tax policy, that is the differential between domestic and foreign tax rates:

$$(5) \qquad T(t) - T^*(t) = [a(t) - a^*(t)] + [p(t+1) - p^*(t+1)] - [k(t) - k^*(t)] - [i(t) - i^*(t)] - [w(t) - w^*(t)]$$

In general, relatively higher tax rates in the domestic economy are therefore possible if productivity is higher than abroad, if the expected price level is higher (because this implies higher expected nominal income), and if after-tax profit rates, nominal interest rates, and after-tax wage rates are all lower than in the foreign economy. Equation (5) is true by definition, of course, but it gains theoretical significance when it is realised that the tendency within neo-classical economics would be to appeal to various 'factor price equalisation' theorems, which would reduce or eliminate most of the differentials on the right-hand side of the expression. To the extent that this does *not* happen there would be scope for a different tax/fiscal policy. From this point of view, political arrangements such as free trade areas, and *a fortiori* a currency union, can themselves be seen precisely as devices to attempt close down these differentials, and restrict the scope for policy, if this process was not occurring 'naturally'

Effective demand, output and employment

As for the demand-side of the model, we take a fundamentally Keynesian view of the determinants of both output and employment in the domestic and foreign economies. An increase in effective demand will increase output and employment, and *vice versa* for a decrease in effective demand. As for fiscal policy, the government expenditure multiplier in principle is positive, $dY/dG > 0$, and the tax multiplier is negative, $dY/dT < 0$. In the present context of EMU, or some potential NAMU, it is crucially important to note also that the 'balanced budget multiplier' (*Ackley,* 1978: 195-7) is positive, as will be explained in the next section of the paper. If we are invoking the balanced budget multiplier, a *higher* tax rate would be an expansionary policy (*Paraskevopoulos – Smithin,* 1998) as it is then accompanied by an equivalent increase in government expenditure. In terms of the theory of endogenous money, the balanced budget fiscal expansion will increase demand for the usual textbook reasons. There will be no 'crowding out', either because (in the floating exchange rate case) the domestic central bank is keeping interest rates rather than exchange rate parity steady, or because (in the currency union case) the rates are no longer set domestically. By definition the accommodating money supply increase cannot arise from a public sector deficit. Therefore the increase in income must be accommodated elsewhere, for example by either the corporate sector or the household sector going into debt.

It should also be remarked that we do not take the view that a demand expansion would necessarily only have temporary or short-run effects, as is assumed in the macroeconomics of the neo-classical synthesis. There is an impact in the 'long-period' also. In other words, we argue that the growth of demand is one of the main prerequisites for GDP growth in the both the short-run

and the long-run[2]. Some of the theoretical underpinnings for this view for the SOE are to be found in *Smithin* (2001B). See also *Smithin* (2001A).

The *Pact for Stability and Growth* and its implications for tax and expenditure rates

Within EMU not only is monetary policy centralised, but there also exist formalised regulations for the direction of fiscal policy. These do not – at least for the time being – directly influence average tax rates as implemented in our model. But the *Pact for Stability and Growth*, which was agreed upon by the European Council and the Ecofin in 1996, had two main explicit directives. First, it set an upper limit for net borrowing of the public sector as a percentage of GDP. This barrier is set at 3 percent of GDP. Second, and even more importantly for the present and future, it states that 'in the medium term public budgets shall be balanced or slightly in surplus'. We therefore incorporate the requirements of the *Stability Pact* into our model.

We can define net borrowing of the public sector, D, as:

$$(6) \qquad D = E - TY$$

and:

$$(7) \qquad E = G + iB$$

where E is total government expenditure, G is public spending (including public investment, public consumption and transfers), B is the outstanding stock of bonds (or the national debt), and iB is the interest charge on the national debt. So, from Equations (6) and (7):

$$(8) \qquad D = G + iB - TY$$

Dividing Equation (8) through by GDP yields:

$$(9) \qquad d = g + b - T$$

where $d = D/Y$, $g = G/Y$, and $b = iB/Y$. Or, in other words, net borrowing as a percentage of GDP equals the public spending rate *plus* total interest payments as a percentage of GDP *minus* the tax rate.

Clearly, the *Pact for Stability and Growth* ultimately sets $d = 0$. Meanwhile, b is determined by the debt stock and by the nominal interest rate. With $d = 0$, the debt stock B is not changing. If we further assume that there will be no changes in monetary policy concerning interest rates for the time being, the *Stability Pact* results in $g = T$. The *Pact* therefore restricts public expenditures pretty

much in line with the concept of the balanced budget multiplier discussed above[3]. Differences in public spending on investment, consumption and transfers between countries are therefore subject in principle to basically the same set of restrictions as are the differences in tax rates specified in Equation (5) above.

In short, under all these constraints, public expenditures can only be higher relative to those of other economies if productivity levels and prices are higher, or on the other hand, if interest rates, profits or wage rates are lower. Relatively higher public expenditures on infrastructure investment, personal expenditures, education, the health system, and social protection, would therefore require differences in other policy variables. Naturally, it is a key question as to how far the other variables can in fact differ in the environment of a currency union.

Variations in interest rates

In this section we analyse the relation between the interest rate differential, $i(t) - i^*(t)$, and the tax rate differential, $T(t) - T^*(t)$. In general, tax rates can differ between jurisdictions if interest rates differ. From a static perspective, lower interest rates allow for higher shares of nominal income for the other income recipients, that is profits and wages. An increase in tax rates would therefore be possible without harming these income shares. And, from a dynamic perspective, lower interest rates tend to increase the nominal income.

In a world of perfect capital mobility – which comes close to the *status quo* in contemporary international financial markets – domestic and foreign interest rates can differ only by the difference between the forward exchange rate and the spot exchange rate. This is the familiar covered interest parity condition (*Frankel*, 1992)[4], or:

$$(10) \qquad i(t) - i^*(t) = (t+1)f(t) - s(t)$$

where $i(t)$ and $i^*(t)$ are the domestic and foreign interest rates in period (t), $s(t)$ is the logarithm of the nominal spot exchange rate, and $(t+1)f(t)$ is the logarithm of the forward exchange rate as quoted at (t) for delivery at $(t+1)$.

As long as different currencies exist, domestic and foreign assets are not perfect substitutes. The forward exchange rate is therefore determined by the expected future spot rate, $s'(t+1)$, and a risk premium, $z(t)$:

$$(11) \qquad (t+1)f(t) = s'(t+1) + z(t)$$

It follows that the difference between domestic and foreign nominal interest rates is determined by the difference between expected future and current spot exchange rates plus the risk premium. The

risk premium, $z(t)$, may depend on such things as the foreign credit position of the economy and covers a devaluation or depreciation risk.

$$(12) \quad i(t) - i^*(t) = s'(t+1) - s(t) + z(t)$$

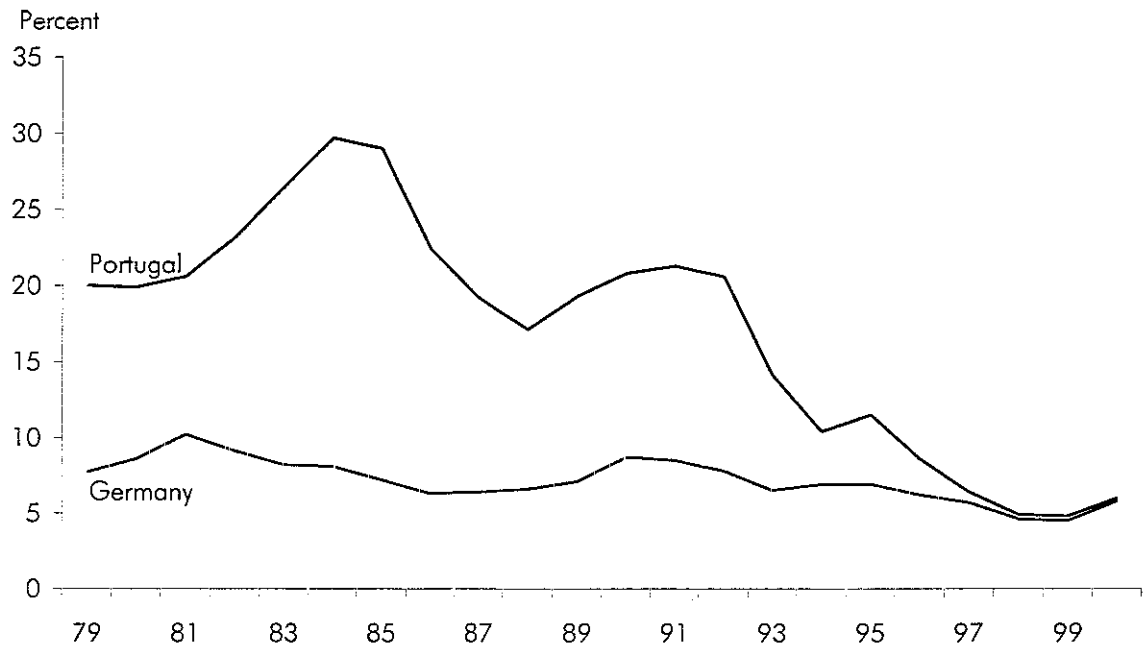
This would be the case for a monetary regime of flexible exchange rates. Empirically it is currently the case of Canada, and also those EU economies which are not part of EMU (these are the UK, Sweden, Denmark, and Greece until January 1st, 2001). In these situations, domestic and foreign interest rates can differ in accordance with exchange rate expectations and the risk premium. Or, to put the point another way round, if domestic interest rates are lower than foreign interest rates it is possible for the currency to depreciate. This can allow for higher tax rates in the domestic economy.

In the case of fixed but adaptable exchange rates – a regime characterising the situation in the European Monetary System (EMS) between 1987 and 1992 or the old Bretton Woods System of 1944-71 – expectations of exchange rate changes become smaller, but risk premiums still exist. This is because there still remains a chance that the parities can come unstuck.

In a monetary union, however, the key issue is that differentials in nominal interest rates will vanish. Short-term interest rates are set by the common central bank and are equal for all countries. Nominal exchange rate changes are no longer possible by definition. Also differentials in long-term interest rates decline dramatically. This can be shown by the development of long-term interest rate differentials within the EMS. Italian rates, for example, were higher than German rates by about 5 percentage points in the early 1990s when the Italian lira was devalued markedly. The interest rate differential between Portugal and the 'core countries' was even wider (nearly 13 percentage points). In both cases, however, the interest rate differential vanished completely in 1998 when the expectations of Italy and Portugal taking part in EMU became more certain. The risk premium therefore became zero. For the member states of the monetary union not only are short term nominal interest rates equal, but nominal long-term rates also converge. Actually the range of long rates was only from 4.5 percent (Germany) to 4 8 percent (Ireland and Portugal) in 1999.

The central bank directly influences short-term nominal interest rates and indirectly influences long term nominal rates, because control over short term rates effects the entire term structure of interest rates. But it has also a considerable influence on real interest rates as it influences inflation expectations of the market participants. In the short to medium term, however, inflation rates can differ between national economies within a monetary union due to differences in cost developments and inertial factors, such as differences in the institutional arrangements for wage setting. This is indeed currently the case within EMU, where national inflation rates vary between 1.0 percent (France) and 3 8 percent (Ireland) in 2000. The standard definition of the nominal interest rate is:

Figure 1: Convergence of long-term nominal interest rates in the Euro area 1979-2000



Source: OECD, Economic Outlook No 67, June 2000

$$(13) \quad i(t) = r(t) + [p(t+1) - p(t)]$$

where $p(t+1)$ is the logarithm of the expected price level in $(t+1)$. A reformulation of Equation (5) would therefore be:

$$(14) \quad T(t) - T^*(t) = [a(t) - a^*(t)] - [k(t) - k^*(t) \quad - [r(t) - r^*(t)] \\ - [w(t) - w^*(t)] + [p(t) - p^*(t)]$$

This gives the result, as mentioned, that differences in tax rates may be allowed for by differences in real interest rates, and differences in *current* prices, where relatively lower real interest rates and relatively higher prices allow for higher tax rates. This continues to be true for the regime of a monetary union as long as inflation differentials persist. Lower real interest rates have positive effects on the incomes of the other income classes. Relatively higher inflation in an economy within a monetary union can therefore increase the room for manoeuvre for fiscal policy, because it can account for differences in real interest rates, even though nominal rates are the same

In somewhat longer term, however, inflation rates in a monetary union will presumably tend to be roughly equalised. Throughout the period of the EMS, into the run-up to EMU, the maximum inflation differential between member states declined from 20.0 percentage points in 1979 (Austria and Portugal), to 11.0 percent in 1990 (Netherlands and Portugal), and 1.8 percent in 1999 (France and Spain). Since the beginning of EMU inflation differentials, however, have risen to 2.8 percentage points (France and Ireland) in 2000. However, a continuing substantial difference in inflation rates is not a factor which can be relied upon into the indefinite future

From a dynamic perspective higher price levels will potentially lead to declining competitiveness *vis a vis* the trading partners and diminish in the medium to long term. Now, introduce the following definition of the (logarithm of) the real exchange rate, q.

$$(15) \quad q(t) = s(t) + p^*(t) - p(t)$$

Then using (15), (13) and its foreign equivalent, and recalling Equation (12), we can obtain the following expression for real interest rate differentials:

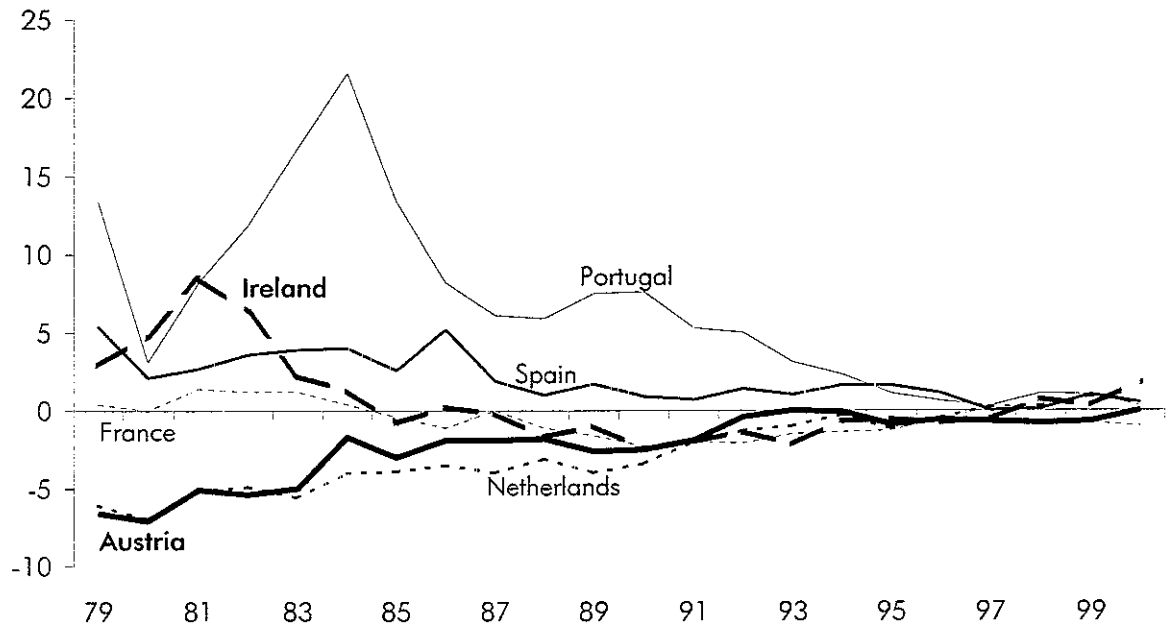
$$(16) \quad r(t) - r^*(t) = q'(t+1) - q(t) + z(t)$$

Obviously $z(t)$ is zero in a currency union, and if real exchange rates are also not *expected* to change, the real interest rate differential in Equation (14) can vanish. The expression for differentials in tax rates would then reduce to:

$$(17) \quad T(t) - T^*(t) = [a(t) - a^*(t)] - [k(t) - k^*(t)] \; - \; \{[w(t) - p(t)] - [w^*(t) - p^*(t)]\}$$

Figure 2: Inflation differentials in the Euro area 1979-2000

Deviations from EU inflation (CPI) in percentage points



Source: OECD, Statistik Österreich

As shown by equation (17), however, competitiveness is not only dependent on the inflation differentials as such, but on unit factor costs. This variable is influenced by the rate of profit and the real wage rate and – most importantly – by productivity.

Differences in productivity, profits and real wages

Besides nominal and real interest rates and prices, according to equation (17) there are three other factors which potentially allow tax rates to differ. From the technical economic modelling point of view even if the expectational factor, $q'(t+1) - q(t)$, goes to zero, we are still allowing for *equilibrium* changes in the terms of trade $(1/q)$. From the practical point of view, the question is whether the rate of profit, real wages, and productivity can be expected to differ very much between the member states of a currency union. Differences in the level of productivity, we think, are of genuine importance. Neo-classical economics will make the argument that economic integration and technology transfer should eliminate productivity differences between economies. But, actually, productivity levels (and productivity growth) between the various economies seem to differ quite considerably, even within the context of trading blocs such as the EU or NAFTA.

The reasons for these differences can be manifold. Productivity is positively related to GDP growth in a fundamental way as set out in Equation (1). Increased GDP growth leads to economies of scale. It is also connected to a high rate of investment, which not only fuels economic dynamics by stimulating demand, but also by capital extension. Existing capacity is used more intensely when the factors of production become scarce. Furthermore, countries which are in a catching-up process have high investment quotas and are often importing technology, thus showing high rates of productivity growth. Mature economies with relatively large service sectors have lower productivity growth for obvious reasons, but the pro-cyclical characteristics of productivity dynamics remain.

But can productivity genuinely be considered a policy variable? From the Keynesian point of view increasing economic growth and endogenously increasing productivity by increasing effective demand is an obvious possibility for macroeconomic policy. Suppose furthermore that a country is able to generate (e.g.) relatively higher investment rates, a more effective innovation system, more intensive efforts in the educational system, or advantages in other variables (such as the quality of healthcare or the environment) in comparison to other economies. It would therefore be able to gain higher productivity levels and higher GDP, and could afford higher tax rates than the competing economies. In fact, a sort of a 'virtuous circle' may be established, as higher tax rates themselves provide the funds for improving the relevant determinants of productivity.

Table 1: Labour Productivity levels 1999 (GDP in real terms per employee, in prices and exchange rates of 1995, standardised Germany = 100)

Austria	88
Sweden	90
Germany	100
France	101
Ireland	80
Italy	79
Netherlands	97
Spain	67
UK	63
Canada	73
USA	102

Source: OECD, WIFO

Table 1 shows that there exist quite large differences in productivity levels within the European Union. These differences prevail, although the numbers for single economies change sometimes by a large amount, if one calculates productivity levels in purchasing power parities. Comparisons of national productivity levels remain to be treated with caution, however, as is also shown in table 1a

Table 1a: Labour Productivity levels EU, USA 1999, purchasing power parities, standardised USA = 100

	EU	USA
GDP per capita	65	100
GDP per person employed	76	100
GDP per working hour	93	100

Source: EU Commission services.

According to equation (17) differences in tax rates can also be accommodated by differences in factor incomes. Lower after-tax profits and real wage rates allow for higher tax quotas. Again factor price equalisation in a 'free market economy' should – from a neo-classical point of view – level out these differences. But, in reality, substantial differences in factor incomes prevail in both a common market and a monetary union. These differences will be dependent especially on the degree of factor mobility and various path dependencies. Barriers to mobility will be low concerning interest rates and dividends (which are basically another form of return on financial capital). They are relatively higher with respect to industrial capital and are highest of all for labour. We therefore see a hierarchy of factor mobility in the real world. Of course, mobility differences also exist within these broad groupings of income distribution. That is between different forms of entrepreneurial capital (e.g. between small and large firms, or industrial production and services) and between different types of labour, depending on educational levels, age etc.

Concerning real wage rates the model points to a possible substitution between after tax real wages and tax rates. Tax quotas on this definition also include social security contributions. If wage

rates are relatively lower, tax rates can be relatively higher than in other economies. This basically hints at a political choice for wage earners. If wage earners are interested in higher tax rates (the next section will argue the rationale for such a point of view) they can, and in the environment of a currency union may have to, moderate wage claims.

Tax competition and tax harmonisation

It has been shown that the room for manoeuvre for different levels of tax quotas is very much dependent on factor mobility. The concept of a hierarchy of mobility in the factors of production points to that the fact that tax competition will concern the most mobile factors. Market pressure for equalisation of tax rates in a common market and monetary union will be most intensive in these areas.

In an unregulated market economy this could easily lead to tax competition whereby the jurisdictions actively try to attract financial and entrepreneurial capital and mobile labour by specific tax cuts. This version of a 'beggar-thy-neighbour' policy could in consequence lead to a decline in average tax and state quotas and to massive changes in tax structures. Tax rates will tend to be low for the mobile factors, while the full tax burden will be born by the most immobile factors. This will have severely regressive consequences for income distribution.

Political reactions can occur in the form of attempts to harmonise tax systems. These might include a minimum level for certain tax rates and a co-ordination of tax bases. In the EU the trade unions especially and those governments which defend the general concept of a welfare state have been recognising the threats which are embedded in an extension of tax competition. Negotiations on tax harmonisation in the area of taxes on financial returns and on profits are ongoing, but have yet not come to a definitive conclusion.

Financial balances

Restrictions embodied by such initiatives as the *Stability Pact* not only affect the public sector, in the areas of tax and expenditure policies, but also impact other sectors of the economy. As illustrated by the aggregate financial balances the government balance is a function not only of discretionary tax and expenditure policy, but also fundamentally of the volume of GDP. This in turn is a function of the interaction of the borrowing and savings patterns of the different sectors of the economy (*Domar*, 1944, *Steindl*, 1982).

As accounted for by the identity of credit and debit balances, changes in the financial liabilities of one sector are always balanced by changes in the financial assets of other sectors, and by the same amount. And the financial balances of all sectors always total zero. Public sector deficits, if

they occur, are therefore by definition accompanied by surpluses of the private sector or the foreign sector (*Allsopp – Vines,* 1996, *Marterbauer,* 2000).

The instrument of financial balances allows a view of public budget balances which is more disaggregated and incorporates the effect of the economic cycle (*Kalecki,* 1954, *Rothschild,* 1966). The familiar identity is therefore:

$$(14) \quad (G - I) = (Sh - H) + (Sc - I) + (M - X)$$

or, as a percentage of GDP:

$$(15) \quad d = s - v - ca$$

where *Sh* is private household savings, *H* the credit demand of private households, *I* corporate investment, *Sc* corporate savings, *X* exports, *M* imports, *d* the public sector deficit, *s* the savings rate, *v* the investment rate and *ca* the capital account balance.

The change in the financial balances of the public sector from a deficit position to a neutral position as envisaged in the *Pact for Stability and Growth* therefore requires as a matter of necessity equivalent counterpart changes in the private sector's or the foreign sector's financial balance[5]. While the savings rate *s* and the investment rate *v* are mainly determined by aggregate income, the capital account *ca* is also influenced by income (via the current account balance), but mostly by capital flows.

Returning to the topic of a fiscal expansion in a mandated balanced budget environment, it seems that there are two possible scenarios, depending on the strength of accelerator effects in determining the volume of investment. The expansion will increase GDP. Therefore if the accelerator effects are not strong, the domestic savings investment balance will go into surplus, the SOE will be a capital exporter to the rest of the union, and the current account will also be in surplus. If the accelerator effects are sufficiently strong, however, the opposite can occur. The SOE would then attract capital and the current account would be in deficit. Note that, ironically, in the currency union environment (at least for the smaller players) either situation seems sustainable as the capital account or current account deficits, as the case may be, are effectively underwritten by the rest of the union.

Conclusions for economic policy

Consideration of macroeconomic policy alternatives in the context of a currency union resembles the traditional rhetorical question about whether a drinking glass containing a partially consumed beverage is 'half empty' or 'half full'. From the point of view of an SOE such as Canada which currently has a floating exchange rate, but may be forced to face the question of NAMU or 'dollarization' at some point in the future[6], it is clear that the implied restrictions on the freedom to

manoeuvre, not only, obviously, for monetary policy, but also for fiscal policy and in other areas, are so onerous that this is (or should be) one of the main considerations in the debate Such issues were indeed vigorously debated domestically in the discussions surrounding Canada/US 'free trade' and the subsequent NAFTA a decade and more ago[7], although actually they seem far more relevant in the context of NAMU than that of the trading arrangements *per se*. One reason perhaps that the issues do not excite more controversy at the current time is a more general acquiescence in 'neo-conservative' views about fiscal policy, taxes, deficits and surpluses, the size of the public sector, the provisions of the welfare state, etc., which make the implied restrictions seem only 'natural'. We do not share these views, and some reasons for taking a contrary position have been set out above.

Looking at the same question from the point of view of an SOE which is a member of the Euro-zone, however, presents a different aspect. In this case, EMU is a *fait accompli*[8] and the question is rather what, if any, scope remains for an independent policy, which may differ in its social and political orientation from that of some or all of the partners.

In fact, it has *not* always been generally acknowledged that a monetary union has also considerable consequences for fiscal policy. In this paper, we have asked the question what the determinants of differences in domestic and foreign tax rates are. The *Pact for Stability and Growth* establishes a requirement for balanced budgets in the medium term. Under this framework only differences in tax rates would allow for differences in expenditure rates. Therefore (e.g.) a superior system of social security is only possible with higher rates of taxes and contributions. This therefore defines the scope for fiscal policy and of social policy or government investment.

Table 2: Taxes and social security contributions as a percentage of GDP (1990, 2000)

	1990	2000
Austria	42.5	45.1
Sweden	54.0	52.8
Germany	39.1	42.6
France	43.5	45.9
Ireland	32.5	30.7
Italy	39.2	42.4
Netherlands	39.6	39.7
Spain	33.4	35.2
UK	36.6	38.2
Canada	35.8	36.5
USA	27.7	30.2

Source: OECD

Clearly the *Stability Pact* itself very rigidly diminishes the scope for fiscal policy. This is of course its explicit goal. An implicit goal, however, is – arguably – a proposed cut back of the overall role of the public sector. This policy orientation, however, hinders the public sector from fulfilling important economic tasks, for instance concerning stabilisation policy. It therefore implies

deflationary pressure on the economic system, regardless of the explicit monetary policy stance of the ECB (*Allsopp – Vines*, 1996).

Relatively higher inflation domestically may open some room for manoeuvre for fiscal policy in the short run. National economic policies could therefore consider policy options (e.g. an increase in indirect taxes) for increasing inflation without dampening competitiveness. But presumably price levels and inflation would anyway tend to be equalised within a monetary union in the medium to long term.

Productivity obviously can be enhanced by any demand-side policy measures, which improve economic growth. The union-wide interest rate policy, with its direct and indirect effects on investment and exports, is of considerable relevance in this context. Fiscal policy – even when emasculated by balanced budget regulations as in the European case – can still influence aggregate demand via the structural composition of tax and expenditure system. Most relevant is the volume of investment expenditure in relation to total expenditures and also the redistributional effects of fiscal policy. Redistribution in favour of low income households can increase growth due to the differences in consumption rates over the income range.

Relative productivity levels and growth can furthermore be enhanced by supply side measures. This would concern the innovation system and expenditure for research and development, and the overall education system, in particular. But it might also include the quality and coverage of the health and social systems and standards for working conditions.

Table 3: Social expenditures in percent of GDP (1997)

Austria	28.8
Sweden	33.7
Germany	29.9
France	30.8
Ireland	17.5
Italy	25.9
Netherlands	30.3
Spain	21.4
UK	26.8
EU	28.2
Canada	23.4
USA (1993)	21.1

Source: OECD.

Factor incomes are further variables which can be influenced by policy and allow scope for fiscal policy. The concept of a hierarchy of factor mobility gives some hints for policy options. Financial capital is extremely mobile. National tax sovereignty diminishes and this increases calls for tax harmonisation on a European level. Industrial capital, however, should be less mobile. Differences in profits occur regularly and are due to X-inefficiencies, path dependencies, and so on. If

economic policy is able to provide a high quality of the educational and training system, of the national innovation system, and, in general, a stable social framework, acceptable after tax profits could be (relatively) lower This allows for relatively higher taxes on entrepreneurial income.

The most important policy options may concern the wage level. There are possibilities here of a wide range policy of choices The general public may see such things as a high quality health and social system as desirable. A welfare state of this type might continue to be economically possible even within a common market and a monetary union. But this implies a policy consensus concerning wage rates. Wage earners who prefer an extended and high quality general welfare system may be prepared to face relatively lower after tax wage levels. In the end, however, the most important determinant of relative wage levels remains the productivity level

Endnotes

[1] These are the Czech Republic, Hungary, Poland, Slovenia and Estonia.

[2] We find purely mechanical composition methods concerning long run and short run components of economic growth unconvincing and agree with *Kalecki*: "In fact the long-run trend is but slowly changing component of a chain of short-period situations; it has no independent entity" (1968, p. 263).

[3] While the negotiations on tax harmonisation, that is minimum standards for some tax rates and tax bases do not show any signs of success, the discussion on upper levels for expenditure rates and on expenditure structures is starting. This shows very clearly that the *Pact* implicitly is oriented against state influence in the economy and dedicated to diminish the role of social policy in particular

[4] See also *Keynes's* classic analysis in the *Tract on Monetary Reform* (1923, pp 115-139).

[5] *Marterbauer – Walterskirchen* (1999) have shown the equivalent counterpart changes in the private and foreign sector's financial balances during the period of budget consolidation in meeting the "Maastricht criteria" for entering EMU (1995-1997)

[6] There are certainly influential voices in Canada strongly advocating such a change. See, for example, *Courchene – Harris* (1999).

[7] See, for example, *Lipsey – Smith* (1985), *Crispo* (1988), and *Cameron* (1986) with the first two contributions taking a strongly pro 'free trade' point of view, and the third opposed.

[8] The current "weakness" of the euro versus the Dollar and the Yen is without question favouring economic growth and employment in Europe. Such instability, however, may also reflect deeper structural problems and there could emerge profound doubts about the future of EMU. For a very critical analysis of EMU from this perspective see *Parguez* (2000) From our point of view a monetary union must in the longer term lead to a political union if it is to retain viability In this case, the analysis here would be analogous to that of provincial fiscal and social policy in the context of existing federal states

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