Globalisation of the Economy and the Nation State

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1. INTRODUCTION

THE international economic organisations (IMF, World Bank, OECD, WTO, etc.) and most economists hold the view that global economic integration represents a vehicle for significant welfare enhancement.[1] The political climate on the level of the nation states, however, does not reflect this optimism. On the contrary, the catchword 'globalisation' appears to acquire more and more a decidedly negative connotation. It has become popular among national politicians, the media and sometimes even members of the business community to blame anonymous and sinister global market forces for all kinds of political and economic problems. Above all, the so-called 'globalisation trap' is held responsible for unpleasant labour market conditions — unemployment in Europe and real wage reductions of low and middle income families in the United States — and for the alleged dismantling of the welfare state.

The two views, in principle, need not be contradictory. The changes concomitant to global economic integration clearly do have distributional consequences. In other words, there are gainers and losers from globalisation. The opponents of economic integration may thus simply place more emphasis on questions of distribution than those who advocate globalisation without qualifications. In any case, in order to properly evaluate the situation at hand, the efficiency and distribution effects of global economic integration need to be analysed in detail — a task that the economics profession has attended to with great zeal over the last few years.

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[1] This assessment is founded on the generally held belief that market allocations are efficient. Moreover, there is systematic empirical evidence showing that financial market integration is associated with economic growth. For recent studies, cf. Quinn (1997) and Edwards (1998); for a survey of this literature, Pagano (1993).

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The literature on globalisation falls into two categories. The *first* strand deals with the effects of globalisation on the primary distribution of (labour and capital) income. This literature, which has its roots in the 'trade and wages debate' conducted mainly by economists, is discussed in two recent 'symposia' published by the *Journal of Economic Perspectives* (Vol. 9, No. 3, 1995) and by the *Economic Journal* (Vol. 108, September 1998). Economists as well as political scientists have contributed to the *second* strand which investigates the more indirect effects working through globalisation-induced changes in government activities. Though indirect, these effects seem to cause just as much, if not more, anxiety than the realignments in the labour markets. It has, for example, been claimed that capital mobility renders the tax basis increasingly footloose and thereby seriously reduces the nation states' ability to conduct redistribution policies. (Kurzer, 1993, for example, adopts this view. Claims about dire consequences of globalisation for the nation state are, however, nothing new. Garrett, 1998a, summarises the literature under the heading 'Deja vu all over again.') Moreover, capital-market integration, as a rule, takes place in conjunction with international trade integration, i.e. in a situation characterised by increased exposure to external risk. In such a situation — as has been observed by a long line of scholars (cf. Cameron, 1978; Ruggie, 1983; Katzenstein, 1985; and Rodrik, 1997) — demand for public social insurance programmes systematically increases. An almost inescapable conjecture is that the ensuing 'double jeopardy' (Grunberg, 1998) of increased demand for social insurance and reduced financial means may bring about major political problems in the future. Rodrik (1997), for example, maintains that globalisation of capital markets compromises an implicit deal struck between governments and the working class in the post-World War II era — a deal implying social insurance in exchange for foreign trade liberalisation.[2] If the tension between those who prosper in the globalised economy and those who do not is not managed 'intelligently and creatively,' Rodrik warns, *international economic integration* is likely to bring about *social disintegration* and:

> the domestic consensus in favor of open markets will ultimately erode to a point where a generalised resurgence of protectionism becomes a serious possibility (p. 6).[3]

Jacques Attali (1997) also recurs to the supposition that exposure to international competition has a significant impact on the patterns of domestic political cleavage (cf. Rogowski, 1989, for a comprehensive study of the influence of international trade on domestic political coalition formation). Attali goes,

[2] See Rieger and Leibfried (1998) for a more encompassing review of this argument.
[3] Williamson (1996) uses a similar line of argument to explain the break-down of the world trading system in the interwar period. Bairoch and Kozul-Wright (1996), however, contend that the experience of the first part of the 20th century cannot be carried over in an unexamined manner to the development after World War II.

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however, much further than Rodrik and claims that multinational firms, which by definition transcend national borders and thus escape democratic regulatory control, will, in the final analysis, support the decline of Western civilisation.[4]

Is the debilitation of the nation state really an inevitable consequence of globalisation? To answer this question, the activities traditionally pursued by nation states with a view to influence economic performance need to be analysed separately. These activities fall into the following categories: redistribution and provision of public goods (i.e. fiscal policies), regulation, stabilisation, and — if a very encompassing interpretation of the term ‘economic policy’ is applied — defence. In this survey, we restrict ourselves to evaluating the economic and political-science literature investigating the scope and limits of fiscal policies in a globalising environment; we thus do not go into the issues of regulation, stabilisation and defence. Ultimately one would like to receive, in this context, answers to the following crucial questions.

1. What are the theoretical links between globalisation and fiscal policy?
2. To what extent does global economic integration change the size of the public sector and the structure of public expenditures and taxes?
3. To what extent does globalisation debilitate fiscal policies undertaken by national governments?
4. Is there any reason to believe that globalisation reduces national governments’ scope for redistribution?

These are certainly legitimate questions. There is no doubt that globalisation does have distinct effects on the *structure of public finance*, both on the expenditure and the revenue raising side of the budget. This is so because international mobility of goods, factors, and consumers places exacerbated constraints on national governments’ behaviour. The constraints on taxation are probably the most visible ones. For instance, export and import-competing firms scale down their operations when overloaded with corporate taxes, financial capital can escape heavy taxation by moving abroad and so can productive capital in the long-run; consumers shop across borders to profit from lower excise or value added taxation, and domestic subjects relocate to a foreign country to enjoy lower income taxes or better social security systems. National governments lose their monopoly of coercion and find themselves in a situation of strategic interaction with their foreign counterparts instead. Just as firms in the marketplace, they become competitors seeking to attract mobile factors and to provide conditions favourable for making domestic goods competitive in the global market.

[4] Similar scenarios are conjured up in popular novels (see, for example, Crichton, 1992) and in the treatises of popular writers on international commercial issues (such as Martin and Schumann, 1997) some of which Krugman (1996) takes on in his book entitled *Pop Internationalism*.

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How fierce this competition will be depends on the *degree of international mobility*, which differs across factors and goods. Labour is typically less internationally mobile than capital. Financial capital, in particular, is extremely sensitive to (tax induced) differences in net returns; the market reaction following the introduction of a withholding tax on interest income in Germany and the United States testifies sufficiently to that statement (cf. Deutsche Bundesbank, 1994; and Goulder, 1990). Tax induced commodity arbitrage (including smuggling) is more important for highly taxed goods like cigarettes and liquor or highly priced goods (cars, jewellery). Mobility, however, also has a geographical dimension: In the European Union, for example, the labour markets of Germany and Austria are presumably more integrated than the British and the Italian markets since Germany and Austria share a common language and border. Likewise, cross-border shopping is much less of an issue for the British government than it is for the Dutch government. In sum, the degree of globalisation is not uniform, but depends on the type of transaction (i.e. the type of good or factor traded) and, to a lesser extent, on the location. A government's reaction to tax competition will therefore always depend on the intensity of the contest.

While the *extent* of a government's reaction depends on the degree of international mobility, its *form* is determined by the type of incentive that induces cross-border movements. Taxation is but one, yet important, factor for location decisions. Capital seeks its highest net returns, adjusted for differences in risk. The market for financial capital is already effectively integrated and out of the national governments' reach.[5] Real capital likewise seeks the highest net returns. However, the profitability of real investment projects is determined by a number of factors, only some of which — such as the effective marginal tax rates or publicly provided infrastructure — are under government control. In a globalised environment governments need to compete by means of tax *and* expenditure policies for real capital inflows which increase income and employment. An isolated look at the relative tax burdens can therefore be misleading: If the additionally provided infrastructure increases a firm's productivity by more than the tax levied to finance it, it pays off to locate in the country with the higher tax burden (cf. Aschauer, 1989). Governments competing for foreign investment will therefore restructure their expenditure towards more privately productive public inputs at the expense of transfers and non-productive government consumption. Government expenditure will favour mobile factors either directly through subsidies of some kind or through productivity-enhancing inputs. The latter comprises all kinds of public infrastructure including communication, transport facilities etc., but also public security and education. It will place non-productive

[5] The history of the Eurocurrency market testifies to this statement: The Eurodollar market came into existence, among other reasons, because it provided a way of avoiding the US interest equalisation tax.

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and immobile groups at a disadvantage, in particular immobile (non-skilled) labour, retired people, and consumers.

The same distributional effect will materialise on the revenue generating side of the budget. The tax burden will shift to the factors or activities that cannot escape the (local or national) tax. On theoretical grounds, we should expect increased revenue from labour taxation (personal income taxes) at least for the middle incomes and reduced rates for corporate income taxation (CIT) and, possibly, a reduced effective top rate for personal income taxes, since the extremely wealthy and partnerships are in a position to relocate their residence in order to save taxes. By the same token, property taxes will become more prominent. The reason is that relatively high tax rates on mobile factors will increase the incentives for the taxed factor to emigrate and thereby erode the tax base. Conversely, low tax rates attract mobile factors such as capital; governments will therefore try to undercut each other in order to attract these mobile factors. This will lead to tax rates that are lower, the stronger the competition, i.e. the more tax sensitive (mobile) the factors are.[6]

On the same grounds, we should expect a shift from direct taxes, which are mostly taxes on factors, to indirect taxes, i.e. taxes on certain activities. The reason is again that the distributional consequences are different and that factors are more mobile internationally than certain taxed activities such as general consumption. To be sure, a worker, who finds his income tax reduced by a certain amount but who has to pay higher VAT on his consumption such that his overall tax burden remains equal, will have the same incentive to stay or to relocate to a different jurisdiction (provided he is free of any tax illusion). Typically, such shifts in tax structure, however, will not leave the position of a worker unaltered. A revenue neutral shift towards more indirect taxation will reduce the overall tax burden of productive factors as the consumption of economically ‘unproductive’ people such as pensioners, students, or unemployed is increased.[7] The income redistribution effect is more obvious in the case of foreign-owned capital: A revenue neutral shift from CIT to VAT reduces the tax burden of the foreign capital owner by the full amount of the reduction in CIT rates,[8] thereby making

[6] Strictly speaking, it is the elasticity of the tax base with respect to the tax rate that matters. The more mobile a factor is internationally, the higher the elasticity in absolute terms. However, immobile factors will also be endogenously supplied. In other words, a higher tax rate will also reduce this tax base, but by less.

[7] The term ‘productivity’ is used here in a narrow, tax-relevant sense and does not imply any value judgment.

[8] This is only true if the source principle is effectively in force. This is the case either if the country of residence exempts profits of foreign-based subsidiaries (‘the international affiliation privilege’), a possibility which most EU countries have opted for. Otherwise, if the residence principle applies and profits are repatriated, effective tax rates on domestic and foreign profits differ and thus a reduction in the withholding tax of the host country will also reduce the effective tax burden (cf. Genser and Schulze, 1997, pp. 54–55; and Hartman, 1985).

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capital imports more attractive. The increased VAT burden is shared by all domestic residents, though differentially, as the VAT is a regressive tax.

Increases in indirect taxes may in turn give rise to goods arbitrage and thereby erode the tax base. International tax differentials, which are not reflected in an appropriate exchange rate wedge, provide an incentive for cross-border shopping or smuggling, depending on whether the origin or the destination principle prevails for purchases abroad.[9] The extent of these arbitrage activities depends on the tax differentials relative to the costs of transborder shopping; commodity arbitrage is especially attractive, for example, in the case of 'luxury' or special excise taxes on items such as cars, cigarettes, alcohol, etc.

By the same rationale, it may be expected that increased globalisation also increases the importance of user taxes as opposed to general taxes. User taxes such as bridge or freeway tolls or taxes on motor vehicles, school and university tuition are in effect user fees for specific, publicly provided services. From the perspective of the consumers, these taxes are the prices of the goods they consume. As long as the price is below the willingness to pay for this service, there is no reason to evade the tax (unless the service is tradable and cheaper elsewhere, i.e. intergovernmental competition prevails). Since many of these services are non-tradable, user taxes will reduce consumption, and therefore an underutilisation of pure public goods will follow, but they will not induce tax avoidance by going abroad.

After this cursory overview of the likely effects of globalisation on the structure of public finance, we are now in a position to recast the salient point of the globalisation debate in a more succinct manner. In a nutshell, the whole globalisation debate in the realm of fiscal policy can be reduced to two effects — the efficiency and the compensation effect.[10] The efficiency effect captures the influence of globalisation on the supply side of the political market. International trade and capital market integration as well as international mobility of consumers and income-tax payers reduce the governments' ability to finance publicly provided goods, especially if the government's redistribution objectives are not shared by the population at large. The compensation effect, on the other hand, summarises the influence of globalisation on the demand side of the political market. The contention is that demand for public spending, especially for income transfer programmes, varies positively with the extent of globalisation since insurance against market dislocations and counteraction of income inequalities induced by global economic integration become a political objective shared by more and more voters and interest groups. The crucial question thus is

[9] If the origin principle also prevails for international trade, cross-border shopping is not necessary, but mail order purchases will bring about the arbitrage. In the EU, the destination principle prevails, but for cross-border shopping, the origin principle is effectively in force. Most countries apply the destination principle and levy the VAT on all foreign goods upon import.
[10] Cf. Garrett (1995, p. 670).

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whether or not the compensation effect working towards an increase in public spending is more than offset by the efficiency effect. The outcome, of course, depends on the political institutions which govern the interaction between the policy-makers and the involved interests.

In the final analysis, the assessment of the efficiency and compensation effects of globalisation is, of course, an empirical matter. Nevertheless, it appears useful to take a closer look at the mechanisms at work in order to better understand the welfare implications of globalisation and the (change in) policy options that arise from a more integrated world economy. We therefore cover empirical as well as theoretical results in this survey. The paper is organised as follows. In Section 2 we elaborate on the definition of the term globalisation, investigate the quantitative significance of the phenomenon, and speculate about its causes. In Section 3 we summarise the theoretical literature on tax competition and provide a survey on the respective empirical evidence. The expenditure side of fiscal policy is dealt with in Section 4. We start out by investigating the determinants of government growth in order to assess the globalisation impact on the level of government spending. Then the studies presenting direct empirical evidence are summarised and discussed. Finally, we turn to the relationship between globalisation and the pattern of public spending. Section 5 concludes.

2. THE FACE OF GLOBALISATION

a. Describing the Phenomenon

The term ‘globalisation’ has been used extensively over the last few years by scholars in various disciplines, particularly by scholars in the political sciences, sociology, business administration, and economics. When reducing the non-identical uses of the term to one common denominator, one arrives at the notion of increasing goods and factor market integration, whereby a completely integrated market is characterised by the absence of any impediments in international mobility of — as the case may be — commodities, services, and the production factors capital, labour and technology. Globalisation can thus be defined as a reduction in international arbitrage costs.

Using this definition, it becomes apparent that globalisation is not a novel phenomenon; international arbitrage costs have steadily decreased over the last centuries, at least in commodity markets. Several recent developments, however, have given global economic integration a fresh impetus:

(i) The Uruguay round of *international trade liberalisation* has added a new dimension to the previous seven rounds; first, by deepening the scope of the agreement which now includes new rules for services and intellectual property rights, second, by institutionalising the agreement in an

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international organisation (WTO), and third, by providing a perspective for integrating agricultural products and textiles into the existing institutional framework.

(ii) In the 1980s many countries significantly reduced or even completely abandoned *international capital controls*. As a consequence, capital has become much more mobile internationally.[11] The most important aspects of this development for national policy-making are the following:
- In globalised economies, *short term capital movements* dominate the foreign exchange markets and put additional constraints on national stabilisation policy.
- Long-term movements of production capital across national borders, i.e. *foreign direct investments*, are probably the most visible aspect of globalisation. The fact that firms have become more 'footloose' has, of course, consequences with respect to the nation states' power to tax and with respect to employment.
- The enhanced international mobility of *portfolio investments* is somewhat less worrisome than foreign direct investments because there are no direct consequences for employment; however, portfolio investments may have adverse effects on the nation states' tax bases.

(iii) While the first two determinants of globalisation represent purposeful political action towards rendering economic integration feasible, the real driving force behind globalisation is the *technological development* in transportation and, above all, in information processing and communication. Since the:

> ability to collect, analyse, and transmit data, and to coordinate activities worldwide has increased massively, while the costs of doing so have fallen dramatically (Lipsey, 1997, p. 76)

producers are now in a position to coordinate many kinds of transactions via markets while the only previously available and feasible coordination device was the hierarchical structure of the traditional firm. Without the revolution in the information and communications technologies (ICT), the 'slicing up of the value-added chain' (Krugman, 1995), which takes place via outsourcing and relocation of integral parts of existing firms to cheaper locations, would not have been possible. The enhanced monitoring capabilities provided by ICT are on the verge of completely changing the appearance of intra-firm services and the services sector of the economy.

[11] As compared to the international mobility of capital, the production factor labour has remained rather immobile. This reflects the immigration laws which are still restrictive in many countries and the various costs attendant on emigration. Nevertheless, some strata of the population appear to have become internationally more mobile.

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(iv) The last determinant of globalisation consists of the *adoption of some form of market economy and democratic rule of law* in an increasing number of countries. To the extent that these countries have opened up their economies (to trade and FDI) and established a political-economic system based on liberal values, they have become more competitive *vis-à-vis* the core countries of economic integration. This widening of economic integration complements the above-mentioned deepening of integration and the result is a compound drive towards globalisation which magnifies the individual effects. The most prominent examples of countries that have joined the global economy are the countries transforming from socialism; however, similar — though less spectacular — changes have taken place in South East Asia and Latin America.

It is undisputed that globalisation is associated with purposeful government action (trade and financial market liberalisation, transformation) on the one hand, and technological innovation, on the other. Little consensus, however, exists concerning the *causes of globalisation*. Whereas some scholars argue that globalisation is caused by technology-driven market forces which undermine the role played by nation states, others stress the crucial role of governments whose explicit decision to open up markets and to negotiate respective international agreements is seen as a necessary precondition for globalisation. These two views, which Cohen (1996) refers to as the 'liberal' and 'realist model,' respectively, are often associated with the position of traditional economists and political scientists (cf., Bryant, 1987; and Helleiner, 1994, for two exponents). Both views, of course, aim their analysis at the systemic, i.e. international level of interaction. A third view, which is shared by economists and political scientists belonging to the political-economy school of thought, highlights the role of domestic politics ('pluralist model') and argues that the international outcome is rooted in the domestic political process which is fuelled by distributional considerations (cf. Vaubel, 1994; and Sobel, 1994, for two exponents from economics and political science). A fourth approach could, in principle, be considered to focus at the cognitive level ('cognitive model') to analyse the role of belief systems and the political culture to explain the phenomenon of globalisation. In his beautifully written review article, Cohen (1996) arrives at the conclusion that 'the relative utility of the four models and the interrelationship among them remain unclear' (p. 278) and argues that a complete picture of the causes of globalisation needs to incorporate all of these viewpoints. In an attempt to integrate the four approaches, however, citing multiple factors indiscriminately only fudges the issue. What is needed, he argues, is not a comparison of the alternative hypothesis but rather an exploration of the underlying connections among them.

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b. The Empirical Significance

Globalisation, defined as increased market integration, has many dimensions. First, the different facets can be categorised *according to the kind of transactions* involved, i.e. the markets they concern. Adopting the basic distinction used in international economics, we distinguish goods and factor markets. The degree of market integration will typically differ between goods since transportation costs, information asymmetries and trade regulation are not uniform across markets. For capital markets, we have to distinguish financial capital from real capital, in particular FDI. These are entirely different concepts. Raising loans abroad, for example, may be relatively easy while inward FDI may be subject to strict controls (or vice versa). Labour mobility will also differ for different skill levels, the presumption being that high-skilled workers will more easily surmount mobility obstacles such as language and cultural barriers. The last kind of transaction we consider is transmission and diffusion of knowledge, which is one of the driving forces of globalisation. Trade in information, whether within integrated, multinational firms or in the form of patents and licences, constitute one of the most important aspects of globalisation. Without moving capital or labour, firms can take advantage of international production cost differences.

For each kind of transaction, there are many methods of measuring the *degree of globalisation*, i.e. the *empirical significance* of the phenomenon under investigation. The following four approaches each tackle the problem from a different angle. Taken together, they provide a balanced picture of the extent and development of global economic integration.

(i) The most straightforward method of quantifying globalisation is to directly measure the *transaction impediments* in the markets for goods and factors. These impediments can be technologically or politically determined. The politically induced impediments are either directly imposed, such as tariffs, quotas, capital controls, etc. or they take the form of risk premiums concomitant to political-economic instability. Measures of political instability are to be found, for example, in the Gastil indices for civil liberties and political freedom (cf. Gastil, 1983 and 1987). More focused on economic risk are the institutional indicators compiled by investment risk services such as the International Country Risk Guide (ICRG) and the Business Environmental Risk Intelligence (BERI).

(ii) The extent of globalisation can also be measured by resorting to the *consequences* of reduced arbitrage costs. Since the *transaction volume,* in general, varies negatively with arbitrage costs, a whole menu of openness-measures is based on the balance of payments, or rather the relative size of its components, i.e. the balance of trade, the current account, and the capital account. For the production factor labour, flow

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statistics are also available,[12] whereas for the dissemination of knowledge, high quality data is much harder to come by.

(iii) While these measures refer to flows, one could also look at the *stocks*, i.e. the accumulated flows. This makes particular sense in the case of the factor markets. The global *diffusion* of national capital ownership (portfolio investment, FDI) at a specific point in time provides a more accurate picture of the degree of integration than the flows in a given period. One could even argue that in a perfectly integrated world economy where all agents' portfolios are diversified in an optimal manner, flows will disappear completely. For the production factor labour analogous figures on diffusion will also shed more light on the degree of labour market integration than immigration and emigration statistics, and data on a country's level of technology is more indicative of its integration in the world market than, for example, the value of patents bought or sold in a given period of time.

(iv) A reduction in arbitrage costs gives rise to price equalisation. *Price differences* across countries can thus be used as an indicator of international integration. It is important to notice, however, that price equalisation is a necessary, not a sufficient condition for market integration; price equalisation may be a consequence of extraneous forces. Moreover, integration in one market may cause spillovers to another market — a prominent example being the factor price equalisation theorem.

The different measurement concepts of globalisation have, in particular, been applied to goods and capital markets; this has led to an extensive literature. We provide an overview of the particular measures in Table 1. Since we focus on the fiscal-policy consequences of globalisation and not on globalisation per se, we refrain from reporting on this aspect of the globalisation literature. Instead, we summarise the upshot of the empirical evidence in Table 1.

Goods markets have undergone a tremendous liberalisation after World War II. In eight GATT rounds, tariffs have been reduced from an average of almost 50 per cent to less than 5 per cent. As a consequence, world trade has risen much faster than world GDP.[13] Still considerable parts of international trade remain to be liberalised; non-tariff barriers need to be abolished across the board,[14] and

[12] On the dubious quality of the available data, see, for example, Straubhaar (1988, pp. 49–52).

[13] The respective figures are 4.8 per cent annual increase in real international trade as compared to 1.8 per cent growth p.a. in real world GDP for the period 1966 to 1994 (*International Financial Statistics, Yearbook 1996*). It must be noted, however, that the trade share in GDP is of the order of magnitude of the respective figures in times of the gold standard. Moreover, the increase in world trade is modest as compared to the increase in international financial capital flows.

[14] Non-tariff barriers can be quantified, for example, by calculating the share of imports affected by NTBs (cf. IMF, 1992), or by counting the number of lodged anti-dumping complaints (cf. Schuknecht, 1992).

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TABLE 1
Measuring Globalisation

	International Price Differences		*Volume of Trade*		*Distribution of Stocks*		*Actual Restrictions*	
Goods Markets	law of one price PPP	+ +	international trade as share of GDP	++	n.a.		tariffs/NTBs transportation costs	+++/+ +++
Financial Capital	interest rate parity (IRP) ■ covered ■ uncovered	 +++ +	S-I correlation financial flows/GDP portfolio investments	+ +++ +	portfolio diversification	?	capital controls intl. transaction costs	++ +++
Real Capital	real IRP	+	volume of FDI as a share of GDP	+	FDI as share of total capital stock	?	capital controls	++
Labour	intl. wage differentials	0	migration flows, scaled by population	+	immigrants as share of total work force	+	migration laws and regulations	0
Knowledge and Information		?	international trade in patents and licences	?	number of intl. patents	?	patent laws ITC costs	? +++

Notes:
n.a.: not applicable, 0/+/++/+++: indicative of no/little/some/substantial globalisation.

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trade in agricultural products, textiles, and services call for special attention. Despite the significant reductions in tariffs and transportation costs,[15] goods markets still exhibit a great deal of segmentation. The law of one price, stating that a good's price should be equal throughout the world when calculated in a common currency, holds only for a narrow range of goods (such as gold). Purchasing power parity (PPP) holds only in the long run, deviations from it are frequent and persistent with a half life of 3–5 years (Rogoff, 1996).[16] Deviations from PPP are hardly surprising since exchange rates are determined in the very short run by capital flows; it is the *persistence* of PPP deviations that constitute the 'PPP Puzzle' (Rogoff, 1996).

Capital controls have been increasingly abolished in the OECD countries, but have also been reduced in many newly industrialised countries, notably in Latin America (cf. OECD, 1990; and IMF, 1996). Capital flows have surged in recent years; gross cross-border equity flows have increased from US$300 bn in 1984 to about $1.7 trillion in 1990, which is equivalent to an increase of 34 per cent per annum. Still there is a strong home bias in portfolio holdings and thus potential gains from international diversification (Tesar and Werner, 1995). Koechlin (1995) demonstrates that FDI is rising, but at a relatively modest pace and that investment remains largely a domestic process. The average of outward FDI as percentage of total investment by domestic firms for eight industrialised countries has increased from 3.2 per cent in the 1960s to 7 per cent in the first half of the 1980s.[17]

Covered interest rate parity holds very well on international markets as transaction costs are very low (e.g. Frenkel and Levich, 1975 and 1981). Deviations from uncovered interest rate parity as well as from real interest rate parity, however, are frequent. The reason for the latter finding are the persistent deviations from (ex ante) PPP caused by high exchange rate volatility (cf., for example, Frankel, 1992).

Labour is still rather immobile internationally. For instance in the European Union only three to four per cent of the work force comes from abroad;[18] the lion's share coming from other EU countries. Even substantial income differentials do not appear to provide sufficiently strong incentives for migration; the only exception being highly-skilled personnel (Zimmermann, 1994).

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[15] Today's sea- and air-freight costs amount to about 48 per cent and 16 per cent, respectively, of the 1930 levels.

[16] PPP in its weaker (relative) form maintains that national price levels, denominated in a common currency, should change proportionally. Stated differently, the real exchange rate should remain constant. See Rogoff (1996) for a survey on the ample evidence on the validity of PPP and Goldberg and Knetter (1997) for evidence on market segmentation including pricing behaviour of internationally operating firms ('pricing to market').

[17] Canada, France, Germany, Italy, Japan, Netherlands, UK, US.

[18] Germany is an outlier with 9.8 per cent (1995), Switzerland is another one.

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International trade in knowledge is very hard to measure, partly because it occurs mainly within multinational firms (MNFs). MNFs have the distinct advantage that they do not have to disclose knowledge to competitors or other firms which might take advantage of the traded information (principal-agent problems). The value of patents and licences traded internationally could serve as an indicator of the development in knowledge diffusion. A very crude approach to measure the distribution of knowledge would be to count international patents. However, the number of patents does not reflect the value of corresponding knowledge; moreover, patent laws differ substantially between countries, so that the sheer number is hardly indicative for the amount or value of the information protected. The only aspect which can be asserted in this context without any doubt is that the cost of information technology and communication has dramatically decreased over the last few decades. Today's telecommunication costs amount to about 1.4 per cent of the cost in 1930.

We have dared to assess the scope of globalisation using our classification scheme summarised in Table 1. Needless to say, the estimated extent of globalisation according to the criteria (which correspond to the individual cells of the table) is highly debatable. The overall picture is, however, well in line with the assessment of many scholars in the field. Even though it is true that global market integration has made some headway since World War II, we still have a long way to go to arrive at an integrated world economy which really deserves this name. Geoffrey Garrett, for example, points out that as long as cross-border economic activities continue to be heavily concentrated within the advanced industrial countries, 'globalisation' is a misnomer. And even if one focuses on these core countries of economic integration, the observed trend has by no means eroded enduring variations among countries and different market segments (Garrett, 1997, pp. 12–13).

3. GLOBALISATION AND TAX COMPETITION

a. The Theory in Summary

The analysis of capital tax competition is presumably the best developed area in the field of government competition. We survey the main results of this literature.[19]

The basic setup portrays many jurisdictions competing for a given stock of capital, which is perfectly mobile across jurisdictions and moves across borders to seek the highest net-of-tax return. The second factor of production, labour, is

[19] In this paper we survey the relevant literature in a non-technical way. For more detailed and more technical surveys see Mieszkowski and Zodrow (1989), Koch and Schulze (1998), and Janeba (1998). Fiscal federalism is surveyed by McKinnon and Nechyba (1997) and Richter (1994).

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immobile. If all jurisdictions share the same technology and scale economies are absent, factors' gross-of-tax returns depend only on their relative scarcity, i.e. the factor input ratio. With taxes absent (or levied at equal rates), capital would be allocated efficiently. It would earn the same gross return in each jurisdiction. Governments levy taxes on capital, their only tax instrument, in a social welfare maximising manner. They seek to maximise the utility of a representative agent, who derives utility from public goods — financed through tax revenues — and private goods purchased out of net income. Efficiency requires that the marginal utility derived from public goods consumption equals marginal utility of private goods consumption ('Samuelson condition').[20]

The striking result of the tax competition literature is that public goods are underprovided. Since government is assumed neither to waste any revenue nor to overtax for whatever reason, marginal social benefit of taxation is equal to its marginal social cost. The marginal social benefit is — as in the case of immobile capital — the benefit derived from the provision of additional public goods. The social cost of increasing the tax rate is now, however, not only the reduction in private (after-tax) income, but also the loss of capital and thereby of national income. In other words, increasing the domestic tax rate produces a positive externality for the other jurisdictions in terms of increased tax base and income. This implies that, for a single jurisdiction, the social cost of increasing the tax rate is higher if capital can exit the country and therefore the optimal tax rate is lower than if capital was locked in the country. Public goods are underprovided (since they were optimally provided in the initial situation of no mobility).[21] In order to remove the inefficiency, the externality described above needs to be internalised — by way of international cooperation.

The basic tax competition model has been extended in many ways to incorporate real world phenomena. First, competing countries may be few in number so that each country cannot take the actions of the other countries as given but needs to anticipate the competitors' reactions. Moreover, countries may have quite different sizes. Bucovetsky (1991) and Wilson (1991) model this strategic interaction of two asymmetric countries. They show that in the resulting equilibrium, the smaller country is better off than the larger one and that the smaller country may even be better off without tax harmonisation, if differences in country size are sufficiently large. In this case, harmonisation (without side payments) will not be feasible although the welfare of both countries combined would increase. The large country levies a higher tax rate because the erosion of

[20] The assumption of a representative agent precludes distributional conflicts between different individuals, the assumption of a social welfare maximising government precludes a conflict between the government and its subjects.

[21] Technically speaking, the marginal utility from public goods exceeds the marginal utility of private goods. This result is derived and discussed in Wilson (1986), Zodrow and Mieszkowski (1986) and Wildasin (1989).

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its tax base which follows the increase in the tax rate is smaller in per capita terms. Higher tax rates imply higher revenue per unit of capital employed, but a smaller tax base; the latter effect is smaller, the larger the country's share in world endowment is. Conversely, if the large country lowered its tax rate, this would result largely in a higher world net return to capital but only attract little capital from the small country and hence lead to a further underprovision of the public good. The small country benefits from an externality: higher foreign tax rates increase its tax base and reduce the net return to capital, which benefits the small country further since it is a net importer of capital.

Of course, today's tax systems are complex and consist of taxes on factors, goods, and services which are mobile to various degrees; modelling governments that levy just one tax, namely a tax on mobile capital, in order to finance the total budget is therefore very restrictive. Consequently, the tax competition literature has incorporated many other taxes. The famous 'aggregate production efficiency theorem' underlies the various results. Diamond and Mirlees (1971) show that taxes should not distort production efficiency, if taxes on activities and commodities can be set optimally. In particular, taxes should not interfere with factor or commodity trade. This implies that capital income should be taxed according to the residence principle. Under this principle, a resident's worldwide capital income is taxed at the same rate, regardless of where it originated. The worldwide allocation of capital and hence production efficiency is then not affected by taxation. However, due to lack of cooperation of tax authorities, worldwide income cannot be monitored sufficiently by national tax authorities.[22] Moreover, as we have argued above, many countries exempt income of foreign subsidiaries from their tax base under the 'international affiliation principle'. If the residence principle is not enforceable and other tax instruments are available, mobile capital should be exempted from taxation altogether and immobile domestic factors (land, labour) should be taxed instead (Razin and Sadka, 1991).[23] This result holds even if domestic factors are immobile, but endogenously supplied. For instance, if labour is immobile but its supply depends on the tax burden, the optimal tax mix is a residence based capital tax and a tax on labour. If taxes on capital can be levied only according to the source principle, it is optimal for a small open economy to tax labour only (Bucovetsky and Wilson, 1991).

If labour is mobile across competing regions, not only will capital earn the same after-tax rate of return in each jurisdiction, but also identical individuals will enjoy the same utility. This yields a second arbitrage condition. In these regional economic models, the production function is assumed to be linearly

[22] See Razin and Sadka (1991) for empirical evidence.
[23] It must be kept in mind that this argument is based on efficiency considerations only and disregards distributional consequences.

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homogenous in mobile labour and capital and immobile land. Governments are assumed to maximise the land value within their jurisdiction as this is the only factor which is fixed to their jurisdiction. The optimal tax mix depends critically on the marginal congestion costs for public goods provision, defined as marginal costs of constant public goods provision per capita as population rises. If all factors can be taxed separately and the jurisdiction is small, the first-best solution is a poll tax equal to the marginal costs of congestion plus a tax on land to cover the additional revenue needs. Burbidge and Myers (1994) show that tax competition in source-based taxes on mobile capital are generally inefficient when labour is also mobile across jurisdictions. However, they also suggest that interregional transfers to control migration can be designed such that the Nash equilibria become constrained efficient. Wilson (1995) analyses a property tax that includes capital and land. He shows that, in the absence of scale economies in public good provision, a small jurisdiction will always choose to tax labour only, whether or not it distorts the supply of labour. It serves as a (distortive) 'user-fee' for public goods because it is the only residence-based tax in his model. It is therefore the only instrument to internalise the negative externality of immigration.

In sum, capital tax competition gives rise to inefficient outcomes if the source principle is applied; tax rates are too low which implies an underprovision of public goods. Worldwide tax rate harmonisation would generate efficient outcomes. However, should country size differences be too large, the small countries will resist harmonisation. If other tax instruments are available, policy makers should refrain from using capital taxes, but rather tax immobile factors, even if this distorts the factor supply.

All these results were derived from an efficiency perspective (which disregards distributional considerations) and under the assumption that governments behave efficiently, i.e. they try to provide the optimal level of public goods as implied by the Samuelson rule. It is quite debatable, however, that governments, as a rule, attempt to maximise social welfare. Taxes are set in a political process, which is largely influenced by distributional considerations: this may well lead to overtaxation. For instance, if subsidies to special interest groups or activities produce political support that is larger than the political opposition that arises from the general, but mild tax increase to finance the subsidy, politicians will find a tax increase favourable although the general public does not. Moreover, bureaucracies might have an inherent tendency to attract new tasks and resources. If this were true, tax competition and the erosion of governments' power to tax might actually be beneficial because it limits governments' ability to abuse their power.[24] It appears that the final judgment on the welfare effects of increased tax competition depends critically on how one views government behaviour.

[24] Cf. Brennan and Buchanan (1980) on this point.

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b. The Empirical Evidence

From the perspective of the tax competition literature we should expect to find that capital taxation is negatively related to the degree of international integration in general and international capital mobility in particular. This relation should hold across countries and over time. We thus have two testable hypotheses: First, at a given point of time, the countries which tax capital least are the ones whose economies are most integrated in the world capital market. Second, capital taxation has been reduced overall over the last few decades as countries have become increasingly integrated. The theoretical analysis of country asymmetries suggests a third hypothesis, *viz.* that similar countries have similar tax rates whereas smaller countries have lower tax rates than bigger ones.

There has been surprisingly little empirical research on the interaction between globalisation and taxation (of capital). Only recently, some empirical studies have sought to systematically link (capital) taxation to the degree of integration in international markets. We survey the evidence on the first two hypotheses in the next section. After having looked at international tax competition, we turn to tax competition in federal states. We then present evidence on the third hypothesis.

(i) International tax competition

In assessing the influence of globalisation on the level and structure of taxation, researchers are confronted with serious conceptual difficulties. First, the few existing empirical studies deal almost exclusively with *capital* tax competition, taking adequately scaled corporate tax revenues as an indicator for possible downward pressures through international tax competition. This is only one — though important — aspect of international tax competition. Globalisation affects not only tax competition for mobile capital, but also commodity tax competition and competition for internationally mobile labour. Partnerships and private firms are taxed under the personal income tax law. Thus, corporate income tax (CIT) competition is at best the most important segment of international tax competition as capital is more mobile than other factors of production. Commodity tax competition is not so important, since the destination principle dominates internationally.

Moreover, CIT applies only to profits from 'real capital' embodied in corporations, but not to 'financial capital' which also transcends national boundaries (international loans, foreign deposits or bonds etc.). In as much as such transborder flows can effectively be monitored and their proceeds are integrated in the personal income taxation under the residence principle, international tax competition is absent.[25] However, the introduction of

[25] Under the residence principle, all income is taxed at the rate of the country of residence, regardless of where it originated. Of course, an individual can still escape higher taxation by changing his or her country of residence.

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withholding taxes on interest income in Germany, the US and other countries and the subsequent massive capital flight demonstrates that certain types of assets can effectively escape national taxation. Interest income had already been liable to personal income tax prior to the introduction of the withholding tax; and the withholding tax payments are fully credited against the personal income tax. Thus, the withholding tax was targeted only at domestic tax evasion, which triggered international tax evasion. In sum, empirical results on international CIT competition may underestimate the globalisation effects on capital tax competition because some forms of capital are already essentially no longer taxable.

Second, it is not entirely clear what the appropriate measure for increased globalisation is in this context. We will comment on the choice of the globalisation measure as we discuss the empirical studies which use different measures of globalisation. However, apart from focusing mainly on CIT competition, these studies have a disregard for transfer pricing possibilities in common. Transfer pricing, however, is a major concern for tax authorities, in particular because this form of tax avoidance does not entail costly reallocation of production factors. Rather than shifting the locus of profit-making, only the locus of profit declaration is shifted — the whole transaction is only on the books and the firm still enjoys locational advantages of the resident country.[26] Yet, this implies that the various measures for capital mobility might well underestimate the scope of actual tax competition. In sum, the empirical results presented below need to be viewed with appropriate caution.

In a panel approach, Rodrik (1997) measures the influence of a country's openness on the tax rate for labour and for capital income separately. He uses data for 18 OECD countries from the period 1965–1991; for tax rates he uses *effective average tax rates* as calculated by Mendoza et al. (1997). These rates are calculated from national account data by dividing total tax revenue from capital or labour taxation by pre-tax income of the respective factor.[27] This eliminates effects of altered tax bases, as tax bases turn up in the numerator and the denominator. (Effective average tax rates are decisive for locational decisions, whereas effective marginal tax rates influence decisions on a marginal investment project.)

Openness is defined as the sum of exports and imports divided by GDP for the previous period. Rodrik finds that the coefficient of openness is positive and

[26] The standard reference is Horst (1971). In a recent paper Genser and Schulze (1997) integrate VAT and CIT rates for EU member states. Even if capital flows were excessively regulated and legal arbitrage possibilities did not exist, profits could be shifted through misinvoicing of intermediate inputs between subsidiaries (Schulze, 1999).

[27] As pre-tax income is not available, it is calculated as the sum of net income and tax revenue. Mendoza et al. aggregate capital or labour income from different sources; for a detailed description see Mendoza et al. (1994).

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significant in the regression equation for labour tax rates and negative and significant in the equation for tax rates on capital. Rodrik (1997, p. 20) concludes that 'there is strong evidence that as economic integration advances the tax burden ... is shifted from capital to labor.' Still, his variable OPENNESS refers to goods trade rather than capital mobility, which is the channel through which arbitrage on net returns takes place. Although there are reasons to believe that economies which are more exposed to foreign trade tend to be economies with higher capital mobility, capital mobility and trade share are two distinctively different concepts. The trade share refers to the actual flow of goods whereas capital mobility refers to a potential to move the production factor capital rather than the actual magnitude of flows.[28] Therefore, Rodrik includes an additional dummy for the presence of restrictions on capital mobility as given by the summary table of the IMF's annual reports on exchange arrangements and exchange restrictions as well as an interaction term of this dummy with OPENNESS. His results no longer allow for a straightforward interpretation. Openness still exerts a significantly positive effect on labour tax rate, but this effect is stronger in the presence of capital account restrictions. The direct effect of capital account restrictions is negative, but insignificant. For the capital tax rate, the direct effect of openness is still negative, but no longer significant whereas the interaction effect is significantly positive and larger than the direct effect. This indicates that, in the presence of capital restrictions, openness tends to increase the tax rate. The direct effect of capital account restrictions is, however, negative; locked-in capital is taxed less heavily.

Rodrik's empirical findings on the relation between internationalisation and taxation structure seem to support the traditional view that increased tax competition shifts the tax burden away from mobile factors towards immobile factors such as labour. Yet, conceptual difficulties with the trade share as an indicator for capital mobility and a simple dummy for the existence of capital account restrictions, regardless of their actual strength, make a cautious interpretation of this particular finding advisable.

In a related approach, Garrett (1995) reaches almost reverse results. In his panel regressions, he uses data for 15 OECD countries from the years 1967–1990. He regresses capital taxes as a share of GDP on the lagged endogenous variable (constructed through instrument variables), growth, unemployment, the trade share and a simple index of capital mobility, which is constructed by counting the number of types of international capital account transactions (out of a maximum of four) which are controlled by the respective country.[29] Moreover, he includes

[28] The trade share is influenced by the country size quite independently of the degree of capital mobility bigger countries tend to have a lower trade share. Therefore, OPENNESS is at best a very crude (and biased) proxy for the degree of capital mobility.

[29] Still, this index does not measure the actual strength of restrictions, but proxies only the coverage of restrictions, nor does it indicate the coverage (let alone the strength) of restriction within a

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an index for the partisan centre of gravity in cabinet and the legislatures as well as interaction terms between the latter variable and, respectively, the index of capital mobility and the trade share. The lagged dependent variable, the partisan index, indicating the relative power of the left and, notably, the trade share, all turn out significantly positive! Increased exposure to trade increases capital taxation. All other direct effects are insignificant, including the index for capital mobility. Only the interaction of trade share with the power index for the left is significant and negative: the higher the trade share, the less the left will increase capital taxes, the incentives to redistribute notwithstanding.

Quinn (1997) has an extended data set of 36 countries, including non-advanced countries. He focuses on the effects of financial liberalisation on corporate taxation (and other policy variables). For his regression, the dependent variables are corporate tax revenue (i) as a percentage of individual tax revenue, (ii) as a percentage of GDP, and (iii) as a percentage of total tax revenue. In a cross-section analysis, he regresses the endogenous variable on the initial level of the endogenous variable (1973 value), economic growth, investment, and trade balance as a percentage of GDP. The degree of capital mobility is again a 0–4 score reflecting the existence of capital controls on four distinct types of capital account transactions. The change thereof, a measure of financial liberalisation, is also included as an exogenous variable in the regression equation. All variables are annual data averaged over the years 1974–1989, except for the changes in capital controls, which are annual changes averaged over time. Contrary to conventional wisdom, most corporate taxation is positively associated with financial liberalisation in most regressions. In particular, CIT as a share of individual taxation, indicating a redistributive aspect of taxation, is significantly positively associated with trade balance and financial liberalisation. Quinn runs the regression of CIT as a share of GDP separately for OECD and non-OECD countries and finds the same results — the index of financial liberalisation is again positive and significant.

These findings are also corroborated by Swank (1997). In a panel approach, he regresses corporate profit taxation as a percentage of operating profits for 17 advanced countries in the period 1966–1993 and, in a second set of equations, employer social security and payroll taxation on domestic and international explanatory variables. Domestic explanatory variables comprise percentage changes in (i) investment, (ii) real net operating income, (iii) real GDP, (iv) the consumer price index, (v) an index for the political power of the left, (vi) a dummy for election years, (vii) total government outlays, and country dummies.

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certain group of transactions. Garrett shows that this index is roughly in line with the savings-investment correlation coefficient. It is, however, very debatable whether this coefficient indicates the degree of capital mobility, as ample theoretical and empirical contributions have demonstrated that a high correlation may prevail in the presence of perfect capital mobility. See Jansen and Schulze (1996) on this.

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(The second set of equations include also the share of population aged 65 or more and the unemployment rate.) To capture the effect of globalisation, Swank uses the trade share and three different measures of capital mobility: the actual total capital inflow and outflow as a share of GDP and two liberalisation indices, one for restrictions of capital account transactions (score 0–4) and a broader index of capital account as well as exchange restrictions (score 0–14), which were both taken from Quinn (1997). He finds that all three measures of capital mobility are systematically and significantly associated with corporate taxation, and positively so. To a lesser extent, this also holds true for the employer social security and payroll taxation. Openness, measured by the share of trade in GDP, however, is negatively associated with business taxation, which contradicts the findings of Quinn (1997) and Garrett (1995).

With the exception of Rodrik (1997), the empirical studies focus on CIT *revenues* (i.e. tax base multiplied by tax rate) as indicators for the degree of tax competition. Yet, revenues are not governments' strategic variables. It has been argued in the Ruding report, that the 1980s have been remarkably profitable years for corporations (Commission of the European Communities, 1992). Kramer (1998) shows that for the 15 EU member states labour income as a share of GDP has decreased from 55.3 per cent in 1980 to 50.1 per cent in 1996, while operating profits as a share of GDP have increased from 9.7 per cent to 13.0 per cent in the same period. Since this coincides with increasing liberalisation in terms of enhanced capital mobility and openness in this period, the reported positive correlation between CIT revenues and measures of globalisation could just reflect an increased tax base and conceal a likewise enhanced tax competition. Therefore we need to look at the strategic variables, namely the CIT rates, directly. The top rate, averaged over 14 European countries,[30] decreased from 44.8 per cent and 37.3 per cent in 1981 to 37.9 per cent and 33.3 per cent in 1991 for retained and distributed profits, respectively. Also, the standard deviation decreased from 7.5 per cent and 13.1 per cent in 1981 to 5.9 per cent and 9.7 per cent in 1991 for retained and distributed profits, respectively. This indicates a downward convergence of tax rates. This fall in statutory tax rates overestimates the downward trend in CIT in that, at the same time, depreciation rules, investment credits, etc. have been tightened, so that the effective marginal tax rates fell only moderately.[31]

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[30] Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Switzerland, and the United Kingdom.

[31] It is difficult to report representative numbers here because effective marginal tax rates depend on the finance structure, the investment project, and the inflation rate, among other things. The Ruding report provides effective marginal tax rates for a weighted average of the three forms of finance, types of assets and of assumed inflation and real interest rates of 3.1 per cent and 5 per cent, respectively. The average tax rate for 12 EU countries amounts to 14.8 per cent in 1986 and 1991, although the variation of single rates has been considerable; the standard deviation has decreased significantly, as for the top CIT rates. Schaden (1995) reports various typical scenarios

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Mendoza et al. (1994) calculate annual effective average tax rates (cf. p. 19) for the G7 countries during the period 1965–1988. Average effective labour tax rates have continued to rise substantially throughout the period. For capital taxes no clear picture emerges until the early 1980s, when tax rates started to decline moderately (except for Japan). Genser et al. (1999) show that effective average tax rates on capital (in general as well as on corporate capital) have fallen significantly in Germany in the period from 1980 to 1995, but their revenue, both as a share of total revenue and as a share of GDP, has remained unaltered due to increased profits. That underscores the tax base effect described earlier and casts serious doubt on the studies which use revenue shares as an indicator for the degree of tax competition.

Next, we briefly report empirical evidence regarding tax competition between regional/local governments. The findings may serve as an upper bound for the effects of capital mobility on tax setting behaviour because capital is more mobile between states or localities than between nations. Moreover, in addition to capital, labour is also mobile on the regional level, which opens another arbitrage mechanism which may become increasingly important internationally as well. Cultural and language barriers and legal restrictions are absent just as are exchange rate risk or differences in political risks.

(ii) Tax competition in federal states

An indirect approach to measuring tax competition has been put forward by Oates (1985). Starting out from Brennan and Buchanan's (1980, esp. p. 185) hypothesis that governments are more restrained to exploit their citizens, the more decentralised taxation is, he relates the degree of fiscal decentralisation to the overall size of the government. The underlying idea is that people would choose the fiscal mix (taxes and expenditures) that served their needs best by moving across state or even county lines. More precisely, Oates uses the sample of the 48 contiguous US states and relates the aggregate state-local tax receipt as a fraction of personal income to a centralisation index, for which he uses the state share of local-state general revenues, the state share of local-state expenditures, and the number of local government units. After controlling for income, he finds no significant correlation between the size of the overall government and the degree of fiscal decentralisation. He finds an even stronger influence of income levels on the size of the government sector (Wagner's law) in his second, international sample of 43 countries. Again the measures of fiscal centralisation have virtually no explanatory power.

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and finds a small decrease in effective tax rates. For instance, for 12 member states of the European Union at that time, she calculates the effective marginal tax rates to decrease from an average 42.4 per cent in 1981 to 37.2 per cent in 1991, assuming the actual inflation rate and a gross return of 10 per cent. Standard deviation reduces significantly from 26.2 percentage points to 9.4 percentage points. Chennells and Griffith (1997) obtain results similar to Schaden (1995).

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Oates's paper has triggered a number of studies on *local* tax competition that produced somewhat mixed empirical results. In particular, Giertz (1981) and Wallis and Oates (1988) find a positive association between centralisation and the size of public sector. Nelson (1987), measuring centralisation as the average population per general-purpose local government, also finds that an increasing number of government units tends to reduce the size of the public sector. Other studies on the county level, surveyed by Oates (1989), find contradictory results. Overall, there seems to be some support for the effectiveness of inter-governmental competition within the US states. It is not clear, however, whether this carries over to the international level, not only because labour mobility, which is thought to produce the competitive pressure on local taxation, is largely absent on the international level. The only other analysis at the international level is provided by Anderson and van den Berg (1998). They replicate Oates's (1985) result that centralisation does not increase the government size (including the informal sectors of the economies) in a sample of 45 countries. Furthermore, the studies in the Oates tradition do not distinguish particular taxes such as property tax or labour tax and then relate them to different types and degrees of mobility, but focus on the overall size of the state-local government.

Interesting empirical evidence originates from Switzerland. Kirchgässner and Pommerehne (1996) focus on personal income taxation, which rests largely in state responsibility and, to a lesser extent, in local and federal responsibility. Tax rates are quite different throughout Switzerland; indexing the average by 100, they range from 55 in Zug to 151 in Valais. Residential mobility is quite high *in comparison to* international labour mobility, so that the Swiss evidence can be regarded as an upper bound for effects of personal tax competition on labour mobility. The authors demonstrate that tax competition has a significant effect on the distribution of high income people, and that tax savings are only partly capitalised in different land rents. They also show that this mobility of high tax payers does not lead to a break-down of redistribution. Government expenditures have experienced the same increase over time as in Germany (although they started from a lower level) and nearly two thirds of the redistribution originates from subcentral governments, which compete with each other through expenditures and taxes.[32] It must be noted that Kirchgässner and Pommerehne (1996) deal with personal income taxes, but not corporate income taxation and, hence, the relevant tax arbitrage possibility is residential mobility rather than capital mobility, which might be considerably higher. Evidence from CIT competition might thus lead to different conclusions, also in the case of Switzerland. Büttner (1998) analyses tax competition of West German municipalities and communities. He shows that local business taxes ('Gewerbesteuer') are similar for neighbouring communities.

[32] Further empirical evidence on competition between Cantons is presented in Feld et al. (1997).

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There is a second strand of literature on local public finance that looks at the last proposition stated in the introduction to section 3*b*, namely that equally sized jurisdictions should have similar tax rates; smaller countries should have lower tax rates. The *international* comparison of effective marginal tax rates lends only limited empirical support to this presumption, as the Ruding report shows.[33] On the local level, however, empirical evidence suggests that local entities mimic the tax setting behaviour of comparable counterparts. Case et al. (1993) look at real state expenditure using a pooled cross-section time-series regression for the continental US over the period 1970–1985. They regress state expenditure levels (total as well as selected categories) on characteristics of the state, such as state income per capita, racial and age composition of the population, population density, and intergovernmental grants, as well as different measures of neighbourliness. For the latter, they use geographical proximity, similarity in income per capita and in the proportion of the population that is black. Allowing for fixed individual and year effects, they find the coefficient for income per capita and proportion of blacks as measures of neighbourliness to be significantly positive; geographical proximity, however, entered negatively and significantly at the ten per cent level. For racial composition as a measure of neighbourliness, the specification that performed best, a one dollar increase in the neighbours' expenditure results in a 70 per cent increase in their own spending. Yet, the rationale behind this equal performance of 'comparable' states is not capital mobility that arbitrages away any differences in net return, but the political process. That explains the different concepts of neighbourliness. Voters observe the quality of incumbents' performance only imperfectly, i.e. they are not informed about the true costs of providing public goods. However, they do observe the actual policies and compare their incumbents' behaviour with that of his counterparts in 'comparable' states. Their judgement and thus their voting behaviour is based on this comparison. This 'yardstick competition' (Besley and Case, 1995; and Ashworth and Heyndels, 1997) leads to similar policies in similar states. In principle, similar (tax) policies could be the result of capital mobility as well as of this kind of yardstick competition. Besley and Case state that:

> it seems reasonable to suggest that resource flows can only be a long-run solution to differences in the tax policies of states. In the short run, the ballot box may serve an important function and, even in the long run, may be a less costly alternative than migration (1995, p. 26).

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[33] The effective marginal tax rates for the base case of no personal taxes, inflation of 3.1 per cent, and a weighted average of forms of finance and types of assets are (for the year 1991) 8 per cent for Belgium, 16 per cent for Denmark, 8 per cent for France, 2 per cent for Ireland, 16 per cent for Italy, 28 per cent for Luxembourg, 20 per cent for Netherlands, 14 per cent for Portugal, 18 per cent for Spain and the UK (Commission for the European Communities, 1992, esp. table 8.19). Germany has been omitted due to temporary incentive schemes in the course of reunification, no cost of capital data are available for Greece.

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In a linear probability model, they regress the incumbent-governor defeat on a set of macroeconomic variables (such as state income per capita, unemployment rate) as well as on changes of the state tax rate and changes of the neighbouring states' tax rates. The data comprise the time span 1977–1988 and the 48 contiguous US states. They find that while increases in the governor's own state's tax rate increase the probability of his being unseated in the following election, an increase in the neighbouring states' rates enhances an incumbent's re-election odds. Consequently, they show that incumbents, who are eligible for re-election, will be more likely to increase their taxes if the neighbours do likewise. Ladd (1992) provides corroborating evidence for the local level. Using the same methodology as in Case et al. (1993), she shows that the 248 US counties mimic the tax setting behaviour of their neighbours.

(iii) Assessment

Tax competition, at least in principle, works through three different channels: One channel is the political process which gives rise to yardstick competition and thus to similar tax rates in comparable states due to informational asymmetries between the incumbent and the electorate (this is Albert O. Hirschman's 'voice mechanism'). A different channel encompasses the mobility of residents who seek the best tax-expenditure mix ('exit-mechanism') and the third channel consists in the tendency of capital to equilibrate net-of-tax returns (adjusted for different risk characteristics). These three arbitrage activities do not apply in an equal manner for all taxes; their effectiveness, moreover, depends on the considered level of jurisdictions (international, interregional, local).

What can we conclude from the empirical evidence? As mentioned earlier, most studies suffer from conceptual problems. Those studies which find a positive correlation between the employed globalisation measure and capital taxation (Garrett, 1995; Quinn, 1997; and Swank, 1997) are biased upwards because they do not control for the increase in the tax base (as a share of GDP). Calculations of effective marginal tax rates, which find a moderate downward trend and a reduced variance (Schaden, 1995; and Chennell and Griffith, 1997), have limited explanatory power as they depend on specific assumptions regarding the considered investment projects and their financing structures. The effective average tax rates on capital income do not show a clear picture; only after 1980 can we discern a moderate downward trend (Mendoza et al., 1994). Yet, Mendoza et al. do not consider this movement to be a measure for globalisation. This is what Rodrik (1997) does; he uses effective average tax rates and thereby controls for tax base effects. However, like all the other studies, he uses commodity trade intensity rather than capital mobility as a measure for globalisation, although it is capital mobility that brings about capital tax arbitrage. When he includes his measure for capital mobility, a simple (0–1) dummy for capital account restrictions, his result of a lower capital tax rate with increased globalisation,

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breaks down. Given these methodological shortcomings, the results have to be interpreted with caution.

Nevertheless, it seems fair to say that the existing evidence on capital taxation shows stable capital tax *revenues* and a moderate downward trend of capital tax *rates* in the 1980s. (A thorough analysis of the 1990s is still lacking.) Substantial tax rates, however, continue to be levied, although capital taxes have been shown to constitute an important determinant of firms' locational decisions (Devereux and Griffith, 1998). Globalisation has not led to dwindling capital tax revenues; the race to the bottom has not taken place. On the other hand, effective tax rates on labour have risen substantially so that at least the relative contribution of capital tax has decreased. In other words, even if we do not find a marked impact on the levels, as the simple tax competition model would predict in the course of globalisation, the effect on the tax structure is in line with the so-called 'efficiency hypothesis'.

Sustained capital taxation need not contradict the rationale behind the tax competition literature: it is possible that governments actively compete for foreign investment through the provision of productivity enhancing public inputs (cf. Aschauer, 1989). If this were the case, globalisation would not primarily show up on the revenue raising side of the budget (as additional public inputs have to be financed), but in the *composition* of the expenditure side of the budget. This is what we will investigate in Section 4*c*. Alternatively, government expenditure could serve as an insurance device via income transfers and publicly provided goods designed to mitigate the consequences of sudden sectoral disruptions or downturns. According to this rationale, globalisation may lead to an increased demand for insurance through the government budget and, thus, to increased taxation. This would be the case if increased capital mobility and, in its course, larger exchange rate fluctuations made the terms of trade more volatile; a larger trade share would render these fluctuations even more serious. Whatever the reason for increased revenue needs might be, this effect concerns the level rather than the structure of taxation. We will investigate the competing explanations for globalisation induced increases in the public sector in Section 4.

It appears that the efficiency and compensation hypotheses are not really competing but rather complement each other; their relative strength needs to be assessed for each type and level of government activity. For example, it seems fair to conclude that the strength of tax competition increases as we move downwards from the international level to the very local level. Still, tax competition has not resulted in a breakdown of redistributive policies or overall government activities on either level. In assessing these results, the relative importance of capital taxes must be kept in mind. In 1988, corporate tax revenue accounted for only seven per cent of total tax revenue on EU average and eight per cent on OECD average (Commission of European Communities, 1992, Table 3A.1, p. 236; for comparable, more recent figures, cf. OECD, 1996).

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In any case, our findings do not have any predictive power. As globalisation runs its course, pressures on the revenue raising side of the budget might exacerbate, previously immobile tax bases may become increasingly mobile, and Rodrik's (1997) gloomy picture of citizens dissatisfied with increased international division of labour might become more realistic.

4. GLOBALISATION AND PUBLIC SPENDING

We now turn to the expenditure side of fiscal policy. Analysing the influence of global economic integration on public spending implies two aspects. First, the question arises as to how the *size* of the government sector is determined and how government size is likely to change in the course of economic integration. This issue is, of course, closely related to the taxation issue covered in the preceding section since total public spending equals tax income plus budget deficit.[34] The second aspect refers to the *pattern* of government spending: Will globalisation of the economy bring about a fundamental reversal of the accustomed structure of public expenditures in advanced industrial countries?

In order to answer the first question, we begin by briefly summarising the extensive literature on government growth in Section 4*a*. We do this with the intention of identifying the channels through which global market forces are likely to influence the share of the government sector; we thereby hope to obtain an *indirect* quantitative assessment of the globalisation impact. In Section 4*b* we then present empirical studies which *directly* estimate the impact of globalisation on the level of public spending. The second aspect, the effect of economic integration on the *pattern* of public spending, is discussed in Section 4*c*.

a. The Literature on Government Growth in the Light of the Globalisation Debate

The economic approaches to explaining government growth employ one of two paradigms.[35] The *apolitical paradigm* is based on the conception that the state intervenes in the economic domain in order to correct *market failures*. According to this view, government growth reflects nothing but the needs of maturing societies as seen by paternalistic public authorities or, alternatively, as expressed by the result of a majority vote in which the policy stance of an anonymous median voter is decisive. In the latter case, the outcome usually does not represent an efficient, i.e. social-welfare-maximising, allocation of resources. However, since efficiency considerations are supposed to be at the root of state

[34] Because of this relationship some repetitions will ensue which we decided not to purge in order to make Sections 3 and 4 of this survey more self-contained.
[35] See the state of the art survey by Holsey and Borcherding (1997).

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interventions, the outcome satisfies at least some notion of democratic fairness. The *political-economic paradigm*, on the other hand, portrays government spending as the provision of discretionary favours on the part of policy-makers in exchange for political support. This paradigm interprets the political process as a pure redistribution mechanism. Especially if this process is not fuelled by the will of the voters at large but by rent-seeking special interests, the outcome cannot be expected to possess any desired characteristics — neither efficiency nor a strong democratic legitimisation. The political-economic models are thus based on the notion of *policy failure*.

Scholars advocating the political-economic paradigm have divided into two schools, one contending that the ideological alignment of the incumbent government and the opposition play a significant role in determining public spending, the other arguing that competition between parties or candidates contesting for political office results in policies which are, ultimately, completely determined by electoral considerations. At the core of this debate is the question as to what extent an office-seeking party can afford to compromise its electoral objective by implementing extraneous, i.e. ideologically-determined, strategies. This issue is of particular interest here since some scholars, in particular political scientists, have argued that even though circumstances allowing ideology-based public policies may have prevailed in relatively closed economies, these conditions have been virtually eliminated by global economic integration (cf., for example, Scharpf, 1991; and Streek and Schmitter, 1991).

Three approaches to explaining and predicting public spending behaviour are thus employed in the literature on government growth: (1) *apolitical models*, (2) political-economic models which include ideological determinants (these models are referred to as *partisan models*), and (3) political-economic models in which ideology does not play any role (*non-partisan models*). Some scholars, however, prefer to use an ‘eclectic’ approach, which uses a mixture of apolitical (especially the median-voter variety) and political-economic elements. In the following subsections, we briefly review the structure of the apolitical and the political-economic models by following the recent state of the art survey by Holsey and Borcherding (HB) (1997).

(i) Apolitical models

The apolitical-type models are based on standard consumer theory. Consumer utility is assumed to be a function of final service output which, in turn, depends on publicly provided inputs and community inputs. Constrained utility maximisation yields a Marshallian demand for public inputs with the arguments *input prices, income, preferences, population size, community inputs, and taxation cum collection costs* (HB, pp. 567–74). Supply is assumed to accommodate demand which is revealed by paternalistic introspection or a majority voting mechanism.

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How do these determinants of public spending fare in empirical tests and how are they influenced by economic integration? In order to answer this question, we discuss the various determinants in turn and summarise our results in Table 2.

- It is undisputed in the empirical literature that *input prices* significantly influence public spending. Input prices have risen considerably and steadily since the 1930s (presumably because public inputs represent, to a large extent, services produced with low capital-labour intensities, and technical progress has mainly been capital augmenting). Thus, if demand is price inelastic, government growth can be attributed — at least to some extent — to the increase in input prices (cf. Baumol, 1967, for the original contribution and Ferris and West, 1996, for a recent study). Globalisation, in principle, can put a cap on input prices of public services in two ways. First, factor price equalisation and migration may exert a downward pressure on wage rates and, second, fiercer competition for footloose factors may provide additional incentives to search for novel capital intensive technologies in providing public services. The scope of expenditure reductions via lower wage rates, however, appears to be limited since production of government services, as a rule, require highly qualified labour (education, health services, public administration); locational competition may have a somewhat stronger effect, at least in those cases where resistance to introducing new technologies cannot be overcome by domestic political pressure alone.
- The theoretical literature postulates two kinds of effects of income on public spending:[36] (1) the traditional income effect of consumer theory working through the *income level* and (2) social-insurance motivated government expenditures which are a consequence of *income volatility*. We begin with the first effect. In contrast to earlier studies, recent investigations using more sophisticated econometric techniques come to the conclusion that the *income elasticity* of demand for publicly provided goods, on the aggregate level, does not exceed unity, implying that the observed growth of the public sector cannot be attributed to economic progress; Wagner's law is not supported. The empirical studies do show, however, that public spending for a large number of government services varies positively with national income. An increase in mean income, brought about by globalisation (a positive association between globalisation and economic growth is documented, for example, in Quinn, 1997), has thus a systematic positive influence on the *level* but a negative one on the *share* of public spending. The negative globalisation effect on the share of government spending will be especially pronounced if globalisation increases the *mean*

[36] For the reverse relationship, see Agell et al. (1997).

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but reduces the *median* income. We now turn to the link between *income volatility* and government spending which is stressed in many contributions to the globalisation debate. In a closed economy framework, this link has been analysed in two recent papers by Katsimi (1998 and 1999). From a purely theoretical point of view, it is clear that income volatility translates into an increased demand for public welfare programmes if the public sector is less volatile (but also less efficient) than the private sector. Katsimi's empirical investigation supports her hypothesis. The social-insurance, i.e. consumption-smoothing property of public spending implies, of course, that an increase in income volatility brought about by global economic integration (cf. Rodrik, 1998, for empirical evidence) should be expected to have a positive impact on public spending.

- The standard economic approach is based on the assumption that *preferences* are stable (cf. Stigler and Becker, 1977). Economists have therefore shied away from analysing the influence of changing preferences on public spending.[37] However, it is undisputed that changes in demand for any good may be due to changing preferences. In the globalisation context, this means that country specific preferences, which are part of the specific political culture, may change if the composition of the electorate changes by migration or if the preferences change because of increased exposure to other political cultures. The magnitude and direction of these effects are, however, almost impossible to predict.
- From a theoretical point of view, the overall effect of *population* growth on public spending is ambiguous and empirical studies come to the conclusion that the effect is not significantly different from zero (cf. the survey by Borcherding, 1985). In any case, if globalisation should have significant population effects at all, these effects are hardly predictable. It appears to be futile, therefore, to speculate about this hypothetical channel of influence.
- *Community inputs* are close substitutes for public inputs to final services output. Nursing in the family circle may serve as an example for a community input which is a substitute for a publicly provided input — in this case for public health services — to produce the output 'health.' Since community inputs depend on socioeconomic factors such as the female labour-market participation rate and the household structure (single and single-parent households), one should expect these factors to have a significant influence on public spending. Even though empirical research on community effects is almost non-existent,[38] the enthusiastic reception of writings on the disappearing spirit of community in the United States (cf., for example, Etzioni, 1993) indicates that community effects may have had

[37] North (1985) and Lindbeck (1985) make an exception (cf. HB, p. 570).
[38] HB cite only one source in this context, namely Schwab and Zampelli (1987).

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a large impact on government growth and may continue to do so, especially if globalisation supports the decline of the community spirit — and few would deny that realignments in industry location, migration and maybe even international portfolio diversification are likely to have severe impacts on the socioeconomic fabric of a society.

- Kau and Rubin (1981) have advanced the hypothesis that government growth in most of the 20th century has been supported by increases in the cost of tax avoidance and tax evasion. Some recent empirical studies lend additional support to this hypothesis (cf., for example, Ferris and West, 1996). Moreover, North and Thomas (1973) have argued:

  > that the rise of the nation state at the end of the Middle Ages was predicated upon tax collection costs falling (HB, note 19, p. 573).

  In this light, it is of course intriguing to speculate whether an increase in the deadweight loss of tax collection brought about by global economic integration (cf. Section 3 of this paper) will reverse the long run trend and may even ultimately result in the factual dissolution of the nation states as predicted, for example, by Ohmae (1995). Despite what the long-term consequences may be, it is clear that, in the short run, the apolitical approach to explaining public spending predicts a downward pressure due to increased tax collection costs. One could, of course, argue that, in the long run, globalisation will also change the tax *structure* itself. If this endogenous policy change should imply a move away from specific taxes (e.g. tariffs) and taxes which are easily evaded (especially corporate income taxes) towards more encompassing taxes which are hard to evade (value added and income taxes for low and middle income earners), this may, to some degree, neutralise the short run dampening effect on public spending.

The results summarised in Table 2 indicate that, on the basis of the apolitical approach to modelling government growth, one cannot unambiguously predict the influence of globalisation on the level of public spending. The situation looks somewhat different, however, when one adopts the political-economic view.

TABLE 2
Apolitical Models

Channel of Influence	*Predicted Influence*	*Empirical Support*	*Globalisation Effect*
input prices	positive	strong	negative
income level	positive	some	negative
income volatility	positive	some	positive
preferences	ambiguous	little	inconclusive
population	ambiguous	some	inconclusive
community inputs	negative	mainly anecdotal	positive
deadweight loss of taxation	negative	some	negative

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(ii) Political-economic models

Since a unifying framework for the political-economic models does not exist, we present the main ideas of the archetype models in turn. We again follow the structure used by Holsey and Borcherding in their 1997 survey. As above, we present the structure of these models in order to assess how global economic integration is likely to influence public spending. The results of our discussion are summarised in Table 3.

- The model developed by Meltzer and Richard (1981) constitutes a natural starting point since it is firmly grounded on the median voter relationships, which are also extensively used by the apolitical-type models. In stark contrast to the apolitical paradigm, however, this model views public spending as a pure redistribution device. This fundamental viewpoint is portrayed in the model by the assumption that the government produces only one purely private (composite) good which is equally distributed among the electorate and financed by a proportional income tax. Given that the income distribution is skewed to the right, i.e. the median income falls short of the mean income, as is the case in virtually all societies, the political choice of the tax rate would be unity if there were no adverse effects prohibiting complete equalisation of post-tax incomes. Meltzer and Richard assume that work incentives are strong enough to confront the relatively poor voters with the choice between a larger share of the cake and a shrinking size of the cake. The optimal tax rate for the median voter under these circumstances varies positively with the difference between mean and median income. Since the median voter's preferences are decisive, the government share is determined by this *income difference*. The empirical results presented by Meltzer and Richard to support their theory, unfortunately, turned out to be rather unstable if couched in other frameworks (HB, p. 576). If one assumes that global economic integration will give rise to increased income inequality — an assumption which

TABLE 3
Political-Economic Models

Channel of Influence	*Predicted Influence*	*Empirical Support*	*Globalisation Effect*
income inequality	positive	mixed	positive
interest group cohesion	positive	some	negative
interest group entrenchment	negative	strong/inconclusive	negative
fragmentation of fiscal authority	negative	strong	negative
fiscal illusion	positive	some	negative
deadweight losses from taxation	negative	some	negative

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appears to be supported by the development so far (cf. Quinn, 1997; and Rodrik, 1998, respectively) — one should, according to the Meltzer-Richard hypothesis, expect globalisation, *ceteris paribus*, to have an expansionary effect on the government share of GDP.

- The model developed by Peltzman (1980) augments the Meltzer-Richard argument, which assumes that voting is the only way of influencing the political process, by also considering rent-seeking activities. Implementing the idea that collective political action presupposes some form of cohesion among the potential members of an influential interest group (cf. Olson, 1965), he arrives at the conclusion that government growth not only depends on inter-group income differences but also on intra-group differences and the simultaneous occurrence of both. The empirical evidence supporting the Peltzman hypothesis, which, in particular, proposes that the growing cohesion of the middle class was to a large degree responsible for government growth in the post-World War II United States (and thus lends support to the so-called Director's law), is not overwhelming. Nevertheless, if it should turn out that globalisation tends to increase work insecurity even for higher echelon employees (cf. Rodrik, 1998, for an empirical study on the impact of external risk on income volatility), this might contribute to a decline in the political influence of the middle class which, in turn, may contribute to a reversal of government growth.
- Another (closely related) approach invoking Olson's collective action framework to analyse government growth is to be found in Olson's 1982 monograph on the 'Rise and Decline of Nations' in which Olson advances two main hypotheses: first, long periods of political stability give rise to a proliferation and entrenchment of influential pressure groups, and, second, this sclerosis of rent-seeking interests has a positive impact on public spending. Whereas the former conjecture appears to be well supported by the empirical evidence, the latter fares less well; the evidence is inconclusive. This dismal state of affairs is due to the fact that the political influence of interest groups cannot be observed and the quality of the proxy variables which can been used to overcome this lack of data will always be subject to suspicion. Of course, if one accepts the argument that an expensive lobby apparatus is only built up and supported over time if there is a pecuniary reward, that is, if one can use rent dissipation as an indicator for the value of the successfully contested rents,[39] the second conjecture reduces to a corollary of the first. The implications of the Olson conjecture for the globalisation context are quite obvious. In the transition to a globally

[39] For the relationship between rent dissipation and the value of the contested rent, see, for example, the survey by Nitzan (1995).

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integrated economy, the political process changes substantially. Some economic policy instruments are abolished completely (e.g. capital controls), others are delegated to supranational levels (e.g. trade and monetary policy in the European Union), and various rules describing the political process need to be geared to the new circumstances (public procurement, institutional adjustments to locational competition, etc.). This change of rules will shake up the traditional balance of political power with the consequence that the influence of national pressure groups will be reduced. This effect may be transitory. However, one could also conjecture that shocks which are capable of shaking the political-economic fabric of a whole nation occur more often in a globalised system than in a relatively closed economy so that the political instability effect may also have permanent consequences.[40]

- By portraying government as a unitary decision-maker unconstrained by political checks and balances (*Leviathan* theory of public choice analysis), a worst-case scenario can be established which may be used as a guideline for constitutional recommendations. Applied to a federalist structure, it has been shown (cf. Brennan and Buchanan, 1980; Nelson, 1987; and Zax, 1989) that state monopoly power and thus public spending increases with greater *centralisation* and decreases with greater *fragmentation* of the lower-level jurisdictions. In surveying the empirical evidence, Oates (1989) concludes that the studies conducted thus far support the hypotheses at least at the local level where citizens have the greatest mobility (HB, p. 582). Economic integration, of course, can be interpreted as a loss of monopoly power of competing nation states. In terms of this literature, globalisation thus implies an increase in 'fragmentation' which is likely to imply a decrease in public spending.
- *Fiscal illusion* is often argued to contribute to government growth. Voters are supposed to underestimate the tax price of public inputs, a misconception which the government can exploit, presumably by providing pressure groups with additional rents in exchange for political support. Fiscal illusion has many aspects (cf. Oates, 1988). Those relevant to the globalisation context are: (1) the complexity and (2) the income elasticity of the tax structure.[41] Both effects have received some empirical support. If one accepts that increased economic integration not only has a profound influence on the various tax bases but also on the tax structure, it becomes

[40] To be sure, if economic integration goes hand in hand with political integration, as is the case in the European Union, lobbies will be established at the supranational level. The overall consequences of such a scenario are much more complex and have not yet been investigated in great detail.

[41] Since many taxes are closely tied to income levels, economic growth brings about an automatic increase in tax revenue.

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clear that the extent to which voters are subject to fiscal illusion may change in the process of globalisation. Because of increased locational competition among the nation states, the national tax systems could be expected to become more transparent and the income-tax schedules to become less progressive with the consequence of a reduction in fiscal illusion and thus less government growth.[42]

- Just as in the apolitical-type models, *deadweight losses* from taxation are supposed to exert a dampening effect on public spending. The political economic argument however does not resort to reduced demand by the voters who benefit from and finance the provision of public goods but rather stresses the increased resistance of the tax payers to redistribution. The conclusions, however, are the same.

The results summarised in Table 3 suggest that globalisation of the economy will bring about a reduction of government growth if not a reversal of the secular trend of government spending observed in the past. This tentative conclusion is however, subject to two qualifications. First, one needs to assume that the public-choice approach describes the motives of the agents involved in policy making more accurately than the apolitical approach and, second, the above assessment is based on the unsupported assumption that the positive inequality-effect does not more than neutralise all the other negative effects. It transpires therefore, and not unexpectedly so, that in the final analysis, only direct empirical tests can provide the kind of evidence needed for solid predictions.

b. Globalisation and Government Growth: The Empirical Evidence

In the above section, we surveyed the literature on government growth in order to assess the globalisation impact on the share of the public sector. This circuitous route — which implies two steps, namely (1) the identification of empirically corroborated determinants of government growth and (2) the prediction of how these determinants are likely to change in the course of global integration — is, at best, a preliminary substitute for direct empirical tests of the hypothesised relationship. Unfortunately, sophisticated empirical studies in this field appear to come at a premium. An impartial observer of the scholarly debate on the relationship between international economic integration and the ability of governments to conduct national fiscal policies to sustain social objectives can only be bewildered in consideration of the plethora of theoretical speculations on the one hand and the few serious econometric studies on the other. Only in the last couple of years has real progress been made in this area.

[42] However, if economic integration is accompanied by a drive towards political integration, as is the case in the European Union, the additional supranational level may contribute to an increase in centralisation and complexity and thus to an opposite, i.e. positive effect.

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To be sure, case studies on the topic have been carried out for some time, as have multiple regressions which explain the level of government spending by including a measure of trade integration (cf. the classic studies by Cameron, 1978; and Saunders and Klau, 1985). What has largely been lacking for a long time, however, are more encompassing econometric studies. In this section, we discuss seven recent empirical studies: Garrett (1995 and 1998), Cusack (1997), Swank (1997), Quinn (1997) and Rodrik (1997 and 1998).[43] All seven studies investigate whether global market integration has had an impact on public spending behaviour (particularly in advanced industrial countries) using reasonably rich data sets for a large group of countries, controlling for multiple sources of influence, and employing meaningful measures for market integration. Two of the studies, Garrett (1995) and Cusack (1997), focus on the role of ideology,[44] i.e. they ask the following question: Is it true that the margin for government discretion has narrowed with increasing competition among jurisdictions brought about by global economic integration or is there still scope for ideologically-determined national redistribution policies? The study by Swank (1997) examines the role of democratic institutions in translating globalisation pressure into national policy responses. Garrett (1995), Cusack (1997) and Swank (1997) thus have a partisan or institutional focus, whereas Quinn (1997), Rodrik (1997 and 1998) and Garrett (1998) adopt a non-partisan or even apolitical view.

Different dependent variables are used in the multiple regressions analysing the impact of globalisation on public spending — either some notion of government spending as a *share* of GDP, or the *change* of government shares over time (Cusack, 1997; Rodrik, 1998; and Garrett, 1998). There is even more variety in the actual choice of the independent variables which are supposed to capture the extent of global economic integration. In the three studies analysing the impact of *trade integration* (Garrett, 1995 and 1998; and Rodrik, 1998), this variable is measured as the share of imports plus exports in GDP. *Capital market integration* is captured by using (1) the *volume of actual capital flows* (Swank examines the policy effects of total capital flows, foreign direct investment (FDI), and total borrowing on international capital markets; Garrett, 1998, also uses FDI flows and Cusack employs the Feldstein/Horioka measure, i.e. the absolute value of the normalised difference between private savings and investments), (2) *price differences* (Swank), i.e. covered interest differentials, and (3) the *degree of capital market liberalisation* as measured by (the negative) of the number of government restrictions imposed on cross-border capital flows, based on the IMF

[43] We cite the published version of Rodrik (1998) even though our survey is based on the discussion paper version dated April 1996 (NBER Working Paper 5537).
[44] De Haan and Sturm (1994) adopt the same viewpoint. They cover, however, the open economy aspect only incidentally.

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classification of capital controls (Garrett, Quinn and Swank). Thus, out of the four approaches to measuring economic integration (cf. Section 2), three are used in the econometric studies.

We have noted above that Garrett (1995) and Cusack (1997) endeavour to test the political-economic approach of the 'partisan' variety. To that end, both authors include independent variables measuring to what extent interests favouring redistributive policies have been able to capture the government. One indicator of the political power of 'the left,' which is common to the two studies, is the centre of gravity of government and legislature on a left-right scale as obtained by an expert coding. Garrett (1995) develops an additive index of 'left-labour power' which includes standardised scores for the centre of gravity in cabinet and legislature and for the density, composition and concentration of trade unions. Cusack (1997) explicitly sets out to test the two competing hypotheses within the political-economic approach and uses two explanatory variables capturing the political stance of the electorate (centre of gravity of the legislature, denoted by E) and the difference in ideology between electorate and government (distance between the centres of gravity of government and legislature, denoted by $P - E$). He thus arrives at an estimation equation of the form $\Delta G = \alpha + \lambda X + \gamma_1 P + \gamma_2 (P - E)$, where ΔG and X represent the change in government spending and a vector of other independent variables. Advocates of the partisan model would expect $\gamma_1 < 0$ and $\gamma_2 = 0$, advocates of the non-partisan model $\gamma_2 = -\gamma_1 > 0$.

Table 4 provides an overview of the studies by Garrett (1995),[45] Cusack (1997) and Swank (1997) and also summarises the main results. The first two studies use data on 15–16 OECD countries. To generate a large enough data set, both authors resort to a pooled cross-section/time-series analysis. The results are somewhat contradictory. Cusack obtains a significant negative impact of capital-market integration on government growth. This result, however, does not appear to be overly robust since the size of the respective coefficient varies substantially across specifications. On the political-economic side, his estimates cannot reject the hypothesis that the condition $\gamma_2 = -\gamma_1 > 0$ holds, which is consistent with two conclusions: first, politicians are pure office seekers, i.e. they do not appear to trade off electoral prospects for the conduct of ideology-motivated fiscal policies, and, second, government growth does depend on the ideological stance of the voters at large. Moreover, looking at estimates in which the γ-terms were allowed to vary across time, the ideological impact does not appear to have declined considerably over the estimation period 1955–1989. Garrett also finds some evidence for a negative impact of capital-market and trade integration on the level of public spending, but he does not find a significant positive impact of 'left-labour power.' However, allowing for the interaction of globalisation and

[45] See also Garrett (1998a, chapter 4), for a similar but more detailed analysis.

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TABLE 4
Globalisation and the Level of Government Spending — Partisan and Institutional Aspects

	Dependent Variable	*Variables Measuring Globalisation*	*Variables Measuring Ideology*	*Interaction Terms*	*Other Explaining Variables*	*Period*	*Data R^2*	*Type of Regression*	*Main Results*
Garrett (1995)	government spending	cap. mobility [negative of restrictions (IMF)] NEGATIVE $(X+M)/Y$ NOT SIGN	leftpower [additive index of pol. stance of cabinet and legislature, and power of trade unions] NOT SIGN	leftpower/capital mobility POSITIVE leftpower/trade POSITIVE cond. impact of leftpower. on govt. Spending at low (high) level of globalis. NEG./POS.	country dummies, lagged dependent variable (instruments)	1967–1990	15 OECD countries $n = 360$ $R^2 = 93\%$	pooled cross-section/time series analysis	– globalisation and left/labour power together increase govt. spending – left/labour power has positive effect on govt. spending at high levels of glob.
Cusack (1997)	change in non-defence government outlays	capital market integration $\lvert 1-(I/S)\rvert$ NEGATIVE	pol. stance of cabinet (right) NEGATIVE diff. between pol. stance of cabinet and legislature POSITIVE		input prices, military outlays, unanticipated economic perf., govt. cohesion, ethnic/linguistic diversity	1955–1989 1961–1989	15 OECD countries $n = 525$ $R^2 = 74\%$ 16 OECD countries $n = 464$ $R^2 = 78\%$	pooled cross-section/time series analysis	– glob. decreases state sector (robust?) – politicians are office-seekers – infl. of ideology has not changed over time
Swank (1997)	total public sector outlays	total cap. flows NOT SIGN. FDI, NEGATIVE borrowing, cap. liberalisation, covered int. diff. NOT SIGN. $(X+M)/Y$ POSITIVE	soc. corporatism POSITIVE consensus dem. NOT SIGN. centralisation POSITIVE	cap. mobility/ ■ soc. corp. POSITIVE ■ cons. dem. POSITIVE ■ centralisation POSITIVE	population structure, unemployment, inflation, income, growth	1964–1993	16 advanced ind. countries $R^2 = 47\%–57\%$	pooled cross-section/time series analysis	– only FDI has sign. neg. infl. – soc. corp. and centralisation have sign. effect – given social corp., consensus dem., or centr., glob. has positive effect

'left-labour power,' it becomes clear that the interaction of capital-market integration and trade integration with the 'partisan' variable is positive and highly significant. The combination of 'left-labour power' and high levels of globalisation thus translates via the political process into a higher level of public spending. In a second regression, the *conditional* impact of 'left-labour power,' i.e. the magnitude of the partisan effect at different levels of capital mobility and trade integration is estimated. It turns out that, at high globalisation levels, government spending varies positively with 'left-labour power,' whereas at low globalisation levels, the relationship is reversed. Garrett's results thus appear to be more consistent with the view that governments dominated by strong left parties and supported by well organised trade unions will manage to mitigate market realignments brought about by increasing international economic integration. The alternative view, which maintains that globalisation, *ceteris paribus*, restricts government growth by narrowing down the governments' ability to finance welfare state policies, is more consistent with the estimates presented by Cusack.

The study by Swank (1997) to some extent dissolves this empirical impasse. Just as do the other two studies, Swank employs pooled time-series data for advanced industrial countries. In order to measure financial market integration, he uses a whole battery of variables which are supposed to capture various aspects of globalisation: total inflows and outflows of capital, foreign direct investment, total borrowing on international capital markets, each standardised by GDP, a measure of capital market liberalisation based on the IMF classification of restrictions on cross-border movements, and the absolute value of covered interest parities. Apart from these measures of capital market integration, he also includes the standard measure of trade integration. The focus of the study is on the role of democratic institutions in the globalisation context. The basic question is thus the following:

> Is international capital mobility systematically related to retrenchment of the public economy, (or do) democratic institutions and processes shape the ways in which globalisation affects national policies? (Swank, 1997, p. 1).

To provide an answer, variables measuring the scope of democratic institutions facilitating collective representation of interests are included in the regressions, namely measures for social corporatism (union density, state involvement in wage bargaining, etc.), consensus democracy, and dispersion of authority (federalism, bicameralism, use of referendums). The results are quite clear-cut. As such, capital market integration (maybe with the exception of FDI) does not have a significant influence on government growth, whereas trade integration has a positive rather than negative effect. Capital market integration, however, does have a significant positive impact on the government share in countries characterised by high corporatism (e.g. Norway, Sweden), high consensus

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democracy (e.g. Belgium, Netherlands), and low dispersion of authority (e.g. Denmark, Finland); the converse holds for countries with low corporatism, low consensus democracy, and a high dispersion of authority. These results are also supported by a second regression (not shown in Table 4) which employs public consumption instead of total public sector outlays as the dependent variable. Political institutions thus appear to play an important role in the globalisation context.

We now turn to the investigations which do not consider partisan or institutional aspects (cf. Table 5). In their pure cross-section studies, Quinn (1997), Rodrik (1998) and Garrett (1998) at least double the number of countries included as compared to the panel-data regressions by Cusack and Garrett, and arrive at the conclusion that capital mobility (Quinn) and trade integration (Garrett and Rodrik) are *positively* associated with government spending. Garrett finds no statistically significant influence of financial and real capital mobility on government spending.[46] Rodrik, in a further type of regression, also includes terms-of-trade volatility as an explaining variable. When including this variable and its interaction with trade integration (openness), the estimated coefficient on openness alone becomes negative but is not significantly different from zero in one of the two regressions. The regressions, however, demonstrate that the interaction term of terms-of-trade volatility and openness has a highly significant positive impact on government consumption as a share of GDP. Garrett, in a third set of regressions, tests, with the help of the included interaction terms, whether integration has given rise to a convergence of policy regimes among nations. Such a convergence would be compatible with the ‘efficiency hypothesis.’ His results, however, indicate that trade integration has brought about divergence rather than convergence, whereas, for capital market integration, the respective results are inconclusive. Taken together, these three cross-section studies thus lend substantial support for the ‘compensation hypothesis.’ In the light of these studies, there appears to be little doubt that demand for social insurance programmes increases with increasing international economic integration.[47] This demand, moreover, appears to be accommodated by the governments, i.e. the constraints on financing public expenditures, generated by the increased capital mobility, do not appear to effectively restrict governments in providing the services which are liable to increase their political support.

The 1997 study by Rodrik (written after the JPE article published in 1998) sheds, however, a somewhat different light on the issue. Restricting the set of included countries to OECD countries and using a panel data approach, Rodrik

[46] In his paper Garrett also presents regressions for total government expenditures. Since the results of the two sets of regressions are quite similar, we show in Table 5 only the regressions for government consumption.

[47] Rodrik (1997, 1997a and 1998) provides further empirical evidence for the implicit links in this argument.

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TABLE 5

Globalisation and the Level of Government Spending — No Partisan/Institutional Aspects

	Dependent Variable	*Variables Measuring Globalisation*	*Interaction Terms*	*Other Explaining Variables*	*Period*	*Data* R^2	*Type of Regression*	*Main Results*
Quinn (1997)	govt. exp. (net of defence and education)	change in capital mob. [negative of restrictions on financial flows, (IMF)] POSITIVE		transfers, inc. growth p. capita, investment, trade balance, OPEC dummy	dep. variable: 1974–89 average	n = 38 R^2 = 31%	cross-section regression	capital market integration has a positive effect on government share
Rodrik (1998)	(I,III) government consumption (II) change in government consumption	$(X+M)/Y$ (lagged) (I) POSITIVE (II) POSITIVE (III) NOT SIGN./ NEGATIVE	(III) TOT volat./ openness POSITIVE	income, depend. ratio, urbanisation, dummies for socialist and OECD countries, regions, initl. govt. share	dep. variable: (I) 1985/89 and 1990/92 av. (II) 1990/92 av. minus 1960/64 average (III) 1990/92 and 1985/89 av.	(I) n = 103/125 R^2 = 43/46% (II) n = 98 R^2 = 67% (III) n = 92–105, R^2 = 44%–53%	cross-section regressions	crucial globalisation effect on govt. share is interaction of external risk and openness to trade
Garrett (1998)	government consumption	$(X+M)/Y$: POS. cap. mob.: N.S. FDI/GDP: N.S.		lagged dep. var., income, depend. ratio, urbanis., area, dummies for world regions, population	dependent var.: 1985–95 av.	n = 105 – 115 R^2 = 55%–63%	cross-section regression	– trade is associated with higher govt. spending
	change in government consumption	$(X+M)/Y$, capital mob., FDI/GDP NOT SIGN.			dependent var.: 1985/92 average minus 1970/84 average	n = 108 – 115 R^2 = 14%–17%	cross-section regression	– financial cap. mob. and FDI do not have neg. effect on govt. consumption
	change in government consumption		lagged dep. var./ $(X+M)/Y$: POS. cap.mob.: POS. Δcap.m.: NEG. all other ineract. terms: N.S.	lagged dependent variable	dependent var.: 1985/92 average minus 1970/84 average	n = 62 – 94 R^2 = 17%–30%	cross-section regression	– fin. cap. mob. might generate pol. converg., trade generates pol. divergence
Rodrik (1997)	government consumption	$(X+M)/Y$ (lagged) NEGATIVE cap. account restrictions NEGATIVE	capital account restrictions/ openness POSITIVE	income, year and country dummies	1966–91	n = 456 R^2 = 46%	pooled cross-section/time series analysis	– negative infl. of trade integration and cap. market lib. on govt. share – neg. effect of trade integr. is stronger for lib. cap. markets

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identifies a negative influence of trade and capital market integration on public spending. Moreover, the estimated coefficient of the included interaction term implies that the 'efficiency' effect of trade integration becomes stronger as financial markets are liberalised.

Government spending and consumption are of course rather 'mixed bags,' each component presumably reacting in a different manner to globalisation. It is therefore imperative to disentangle these effects by looking more closely at the various components of total government spending. Especially if the objective is to test the 'compensation hypothesis,' the dependent variable should reflect the presumed social-insurance motivation. Focusing, for example, exclusively on government consumption (Rodrik), which excludes public transfers, does not appear to be very helpful in this context, especially if the focus is on developed countries. There is a second rationale for analysing specific components of total government spending. Some evidence indicates that the influence of openness on government size is driven by country size effects. If there are economies of scale and significant fixed costs to the provision of government services, government consumption (as a percentage of GDP) varies negatively with population size, and, since trade integration is also negatively correlated with population size, government consumption varies positively with trade integration even if there is no direct causal link between these two variables. One way of disentangling the globalisation effect from the population effect is to focus on public transfers since the population effect applies more to the production of government services while the integration effect working through the insurance argument applies more to transfers (cf. Alesina and Wacziarg, 1998).

c. The Structure of Public Spending

When analysing the structure of public spending, it is helpful to start from the various raisons d'être of fiscal policy identified in the literature. The standard normative arguments for government spending are the *provision of public goods* (including the correction of externalities) and *income redistribution*, whereby the latter may be based on social insurance arguments or on altruism. These two raisons d'être of government expenditures derive from deficiencies of market allocations, i.e. from efficiency considerations. Adopting a constitutional-economic point of view (cf. Mueller, 1998), social-welfare enhancing government programmes could, if taken behind a veil of ignorance, achieve unanimous support since they give rise to distribution effects which are, ex ante, completely voluntary. In contrast to the normative arguments, the positive viewpoint adopted by the public choice school focuses on another raison d'être of public spending — one that is based on deficiencies of the democratic political process. Whatever the institutional design of the political process, some politically influential *interest groups* will always be able to benefit from

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government programmes at the expense of others. Government programmes reflecting an implicit or explicit deal between interest groups and political-support maximising politicians are usually inefficient and give rise to distributional consequences which do not meet with everybody's approval. These programmes thus would not be carried out under the unanimity rule — they are a consequence of the existence of political transaction costs and the design of political institutions which are supposed to cope with these costs.

Using these motivations for public expenditures, how does global economic integration change the pattern of public expenditures? In principle, one can identify three channels of influence. First, as some production factors become more and more footloose, they may begin to command a premium in locational competition between jurisdictions since they generate positive externalities for the immobile factors. On this ground, one would expect a shift of *public goods provision* in a direction which increasingly benefits these factors, for example, public infrastructure to attract mobile capital and public programmes targeted at highly productive and mobile human capital owners (culture, education, public security, environment, etc.).[48] Second, globalisation may change demand for *voluntary redistribution*. If the gains from globalisation come at the cost of increased economic uncertainty, social insurance motives as well as altruism may well give rise to an increased demand for redistribution from the gainers of globalisation to those who fare less fortunately with economic integration. Such redistribution programmes are most efficiently implemented via transfer payments. Third, as factor owners and consumers become internationally more mobile, *involuntary redistribution* becomes more difficult since the politically weak and unorganised interests now may have an option to exit. Mobility thus acts like a 'silent unanimity rule.' One would therefore expect the scope for involuntary redistribution to decline (cf. Mueller, 1998).

To be sure, these above-mentioned effects are hard to quantify in empirical tests since it is almost impossible to separate efficiency-motivated public expenditures from expenditures which are driven by involuntary redistribution. Empirical studies thus need to recur to the standard classifications of public expenditures and to identify those items which are most likely to comprise the outlays expected to vary with the degree of globalisation. Standard official statistics classify government expenditures either according to economic or functional criteria. The *economic classification* distinguishes the following categories: government consumption, current transfers, capital formation, interest payments on government debt, and capital transfers.

Government consumption, i.e. purchases of goods and services, has traditionally received more attention than any other category of public spending

[48] This is not to say that, from a global point of view, this change of the pattern of public spending is efficient (cf. Keen and Marchand, 1997).

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in macroeconomics, supposedly because this category dominated the government budget for a long time. In the 1960s, for example, government consumption was still larger in the European countries than current transfers (12.3 per cent versus 10.4 per cent of GDP). In the meantime, however, this situation has reversed (17.2 per cent versus 24.7 per cent in 1988). Government consumption is, unfortunately, not a homogenous class of expenditures. It is therefore not *a priori* clear whether one should expect government consumption to change significantly in the course of globalisation, and if so, in what direction. Given this ambiguity, we concurred with Rodrik, who uses government consumption as an indicator of the equilibrium level of government expenditures in his work, and we subsumed this category under the analysis of globalisation-induced changes in the *level* of public spending (cf. Section 4*b*).[49] *Current transfers* are probably the crucial economic category in analysing globalisation-induced effects. There are two reasons for this assessment. On the one hand, this category certainly best reflects the scope of public redistribution programmes induced by social-insurance considerations and altruism. Thus, if one believes in a strong 'compensation effect' of globalisation, one would expect a significant increase in transfers as markets become globally more integrated. On the other hand, looking at the development of *per recipient benefits* from transfer programmes in the past (cf. Garrett and Mitchell, 1997), one notices at once that these programmes are at the root of the unprecedented spur of government growth in the 1970s. Since the transfer budget increased even if demographic and economic changes are controlled for, the conclusion that these expenditures represent, to a large extent, involuntary redistribution does not appear to be farfetched. Adopting this view, one would expect the 'efficiency effect' to dominate, i.e. one would expect transfers to decline as globalisation runs its course. To be sure, the economic category 'current transfers' comprises various types of redistribution programmes; in most countries, social security expenditures dominate, but unemployment benefits, family allowances and other programmes also play an important role. Disaggregation of the constituent programmes therefore seems to be a straightforward research strategy. The third economic category, *capital formation* (public investment), comprises public infrastructure. Assuming that a well developed public infrastructure makes for a competitive advantage in attracting multinational firms, one would expect expenditures of this category to increase with increasing globalisation. As far as the last two categories are concerned (interest payments on government debt and capital transfers), they do not appear to be influenced by globalisation in any clear-cut manner.

[49] Rodrik's justification for using government consumption instead of government welfare spending to capture social-insurance motivated public spending is that, in lower-income countries, efficient welfare programmes do not appear to be feasible so that the insurance function is provided via government employment and the public provision of goods (cf. Rodrik, 1997, p. 16).

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Turning now to the *functional classification* of government expenditures, one can — following Saunders and Klau (1985) — group government expenditures into four separate policy areas: the traditional domain (general public services, public order and safety, defence), the welfare state (education, health, social security, welfare and housing), the mixed economy (economic services, including fuel, energy, agriculture, manufacturing, construction, transportation, communication), and other functions.

Using the functional classification, the focus in analysing the influence of globalisation on government expenditures is clearly on the welfare state expenditures. The welfare state functions comprise outlays which — just as the current transfer outlays — are likely to be subject to the 'compensation' and the 'efficiency' effect of globalisation. Whether one focuses in an empirical study on pure transfers or on more encompassing economic expenditure categories of specific welfare state functions is not a matter of principle but rather of convenience when dealing with the available statistical sources. In any case, in the empirical literature, both routes have been chosen and the results of these studies provide a first crude picture of the globalisation effects on the pattern of public spending.

The results of the relevant empirical studies are summarised in Table 6 and Table 7. The first two studies (Hicks and Swank, 1992; and Huber, Ragin and Stephens, 1993) focus on the relationship between welfare state expenditures and the ideology of the competing political parties. They also include, however, the standard measure of trade integration as an explanatory variable of welfare state expenditures. The dependent variable is the ILO (International Labour Organisation) measure of social security benefits, which includes transfers and many in-kind welfare benefits. In addition, Huber et al. (1993) also use a more narrow measure, namely social security transfer payments (as defined by the OECD). Swank (1997) explains the share of cash outlays for social transfers as a percentage of GDP. He does not, however, adopt a 'partisan' view but rather an institutional one. These three studies focusing on partisan or institutional aspects are summarised in Table 6.

Hicks and Swank (1992) find a positive and significant influence of openness on social security benefits, whereas the competing study by Huber et al. (1993) does not find a significant relationship. The latter does, however, find a positive and significant relationship between social security *transfers* and openness. As far as the influence of ideology is concerned, Hicks and Swank's regression provides strong evidence of opposition-incumbent interaction: as the strength of centre or right oppositions increase, left governments decrease welfare expenditures, whereas a strong left opposition has a positive influence on welfare expenditures of right- and centre-led governments. The estimated coefficient for the opposition variable does appear to have the 'wrong' sign, which the authors however, convincingly interpret as a 'run for the middle' of governments of indeterminate

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TABLE 6

Globalisation and the Pattern of Government Spending — Partisan and Institutional Aspects

	Dependent Variable	*Variables Measuring Globalisation*	*Variables Measuring Ideology/ Institutions*	*Interaction Terms*	*Other Explaining Variables*	*Period*	*Data Observations R^2*	*Type of Regression*	*Main Results*
Hicks and Swank (1992)	social security benefits (ILO)	$(X+M)$/GDP POSITIVE	left govt./opp. POS./NEG. right or centre govt./opp. N.S./POSITIVE	government/ left opposition POSITIVE centre or right opposition NEGATIVE	various institutional and socio-economic variables	1960–1982	18 OECD countries n = 389 R^2 = 92%	pooled cross-section/time series analysis AR1 correction	– sign. positive influence of openness on social security benefits – govt. ideology matters
Huber, Ragin and Stephens (1993)	1. soc. security transfers (OECD) 2. social sec. benefits (ILO)	$(X+M)$/GDP 1. POSITIVE (with country dummies) 2. NOT SIGN.	left cabinet: 1. POSITIVE 2. POSITIVE	Christ. Dem. Cabinet < POSITIVE > POSITIVE	various institutional and socio-econ. variables country and/or year dummies	1956–1988	17 OECD countries R^2 = 79/82%	pooled cross-section/time series analysis	– sign. positive influence of openness on social security transfers – govt. ideology matters
Swank (1997)	social transfers	total cap. flows, FDI, borrowing, capital liberalisation NOT SIGN. (inverse of) covered int. differences POSITIVE $(X+M)/Y$ NOT SIGN.	social corporatism NOT SIGN. consensus democracy NOT SIGN. centralisation POSITIVE	cap. mobility/ ■ soc. corp POSITIVE ■ cons. dem. POSITIVE ■ centralisation POSITIVE	population structure, unemployment, inflation, income, growth	1964–1993	16 advanced ind. countries R^2 = 65%–92%	pooled cross-section/time series analysis	– only covered int. diff. have sign. pos. infl. – centr. has sign. positive effect – given social corpor., cons. dem., or centr., globalis. has positive effect

TABLE 7

Globalisation and the Pattern of Government Spending — No Partisan/Ideological Aspects

	Dependent Variable	*Variables Measuring*	*Globalisation*	*Interaction Terms*	*Other Explaining Variables*	*Period*	*Data Observations R^2*	*Type of Regression*	*Main Results*
Quinn (1997)	govt. welfare & social-security outlays	change in capital mob. [neg. of restrictions on financial flows (IMF)] POSITIVE			transfers, income growth per capita, investment, trade balance, OPEC dummy	dependent variable: 1974/89 average	n = 30 R^2 = 50%	cross-section regression	financial liberalisation increases welfare and soc. security payments
Rodrik (1998)	1. publ. serv. 2. education 3. health 4. soc. sec. 5. housing 6. culture, etc. 7. ec. affairs	$(X+M)/Y$ (lagged) all POSITIVE and significant with exception of (4) which is sign. for 1990/92			income, dependency ratio urbanisation, dummies for socialist and OECD countries and world regions	dependent variable: 1985/89 average	n = 81–84 R^2 = 10–33%	cross-section regression	trade integration increases most types of govt. spending
Garrett and Mitchell (1997)	 1. all inc. transf. 2. pensions 3. unemp. befts. 4. family allow. 5. other transf.	imports from outside OECD 1. POSITIVE 2. POSITIVE 3. POSITIVE 4. NOT SIGN. 5. NOT SIGN.	covered interest rate differences 1. NEGATIVE 2. NOT SIGN. 3. NOT SIGN. 4. NEGATIVE 5. NEGATIVE	external risk 1. NOT SIGN. 2. NOT SIGN. 3. POSITIVE 4. NOT SIGN. 5. NOT SIGN.	lagged benefits and lagged changes of benefits, socio-economic variables, country and year dummies	1976–1990	13 OECD countries n = 195 R^2 = 41–68%	pooled cross-section/time series analysis LDV model with smoothing	– trade integration has no influence on public transfers – import penetration from low-wage countries and financial market integration increases some types of public spending
Rodrik (1997)	social security and welfare expenditures	$(X+M)/Y$ NEGATIVE TOT volatility NEGATIVE		openness/TOT volatility POSITIVE	income, depend. ratio, urbanis. various country dummies	dependent variable: 1985/89 average	19 OECD countries (similar results for larger sample) n = 19, R^2 = 75%	cross-section regression	
	spending on social protection	$(X+M)/Y$ NEGATIVE capital account restrictions NOT SIGN.		openness/cap. account restr. POSITIVE	country and year dummies	1966–1991	OECD countries n = 426 R^2 = 77%	pooled cross-section/time series analysis	in countries with high (low) external risk, public welfare expenditures increase (decrease) with increasing trade integration

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leadership. In the study by Huber et al. (1993), it transpires that both social-democratic and Christian-democratic incumbency are important predictors of welfare state effort. Moreover, comparing the size of the coefficients of government ideology in the two regressions indicates that the social democratic welfare state is less market conforming and more redistributive than the Christian-democratic welfare state.[50] These results imply that ideology plays an important role in determining the pattern of government expenditures, even in countries exposed to global competition.

Swank's regression for social transfers is well in line with his estimates for total public sector outlays (cf. Table 4). Capital market integration does not appear to have a significant *negative* influence on social transfers. On the contrary, the only significant effect identified is that financial integration (as measured by the *inverse* of covered interest rate differentials) has a *positive* influence on the volume of social transfers. Again the regression documents that capital market integration does have a significant positive impact on government spending (here social transfers) in countries characterised by high corporatism, high consensus democracy, and a low dispersion of authority.

We now turn to Table 7 summarising empirical studies on the relationship between globalisation and the pattern of government expenditures which do not consider partisan or institutional details of the political process. The first study is by Quinn (1997) who, in addition to using a general measure of government outlays (cf. Section 4*b* above), also reports results using government welfare and social security payments as the dependent variable. He arrives at the result that international financial liberalisation does lead to *increasing* welfare and social security payments. This effect is statistically significant but, according to the employed standards, not fully robust. More disaggregated government expenditure categories are analysed in Rodrik (1998) and Garrett and Mitchell (1997). Rodrik's cross-section analysis shows that openness — i.e. trade integration — exerts a statistically significant positive effect on most types of government spending. Openness does not enter significantly in the 1985–1989 regression for social security and welfare spending, but does so in the 1990–1992 regression. The only major spending item which does not appear to depend on openness is interest payments on the public debt. The study by Garrett and Mitchell (1997) employs panel data for various types of income transfer programmes in OECD countries and investigates whether expenditures for these programmes depend on the degree of globalisation as measured by three indicators: the volume and volatility of trade, import penetration from low wage

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[50] In a third regression, Huber et al. (1993) estimate the determinants of current government receipts as a percentage of GDP. The coefficient of social-democratic government ideology turns out to exceed the estimates in the other two regressions and the coefficient for Christian-democratic ideology becomes insignificant thus confirming the general redistributive character of the social-democratic welfare state.

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countries, and financial market integration. Garrett and Mitchell (1997) report that, using the complete set of explaining variables, total trade itself was never significantly associated with any category of public transfers. This of course contradicts the results by Hicks and Swank (1992) and Huber et al. (1993) discussed above. Including Rodrik's 'external risk' interactive variable, i.e. trade exposure multiplied with terms-of-trade volatility, the regression reveals, however, that trade integration may have had an influence on public spending, even though the respective variable was only significantly associated with unemployment benefits. Import penetration from low wage countries had a significant positive influence on total income transfers, old-age pensions, and unemployment benefits. Finally, financial market integration as measured by covered interest rate differentials had a significant positive effect on total income transfers, family allowances, and the 'other transfers' which include, for example, benefits for sickness and disabilities. The results presented by Garrett and Mitchell (1997) are therefore largely in support of the compensation view, as are the results presented by Quinn (1997) and Rodrik (1998).

Finally, we turn to the empirical evidence presented by Dani Rodrik in his 1997 monograph in which he raises the question, 'Has Globalisation Gone too Far?' In this study, Rodrik arrives at a rather different conclusion. In a cross-country regression for OECD countries, he finds that openness and terms of trade volatility exert a *negative* effect on social security and welfare expenditures. The interaction term of the two variables, however, still indicates that open countries which are exposed to substantial external risk will use welfare state policies more often than less exposed countries. Moreover, moving from cross-country to panel-data evidence, he shows that the negative effect of openness on social protection is particularly strong when restrictions on capital mobility are weak, thus reinforcing the result obtained for real government consumption discussed in the previous section. Rodrik interprets the somewhat mixed empirical evidence of his studies as follows. Since the positive association of openness and public spending obtained in his 1998 paper is based on a rather broad sample of countries, whereas the negative association identified in his 1997 paper refers to OECD countries, he conjectures that in relatively poor countries which face, as a rule, a high terms-of-trade risk, public spending varies positively with openness, whereas in OECD countries with low levels of terms-of-trade volatility, the relationship is the reverse.

5. CONCLUSIONS

In this survey we have come a long way. The literature on the perceived vices and virtues of globalisation is extensive and contradictory. However, if one restricts oneself to the literature firmly based on encompassing and sophisticated

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empirical investigations, as we have done in this survey, the picture changes to some extent. No scholar who has contributed to the empirical literature endorses the extreme opinion, often heard in the media and from armchair social scientists, that globalisation is bound to destroy the fabric of social welfare states if not the nation state itself. The empirical evidence suggests a more differentiated and less gloomy view of the political-economic consequences of global market integration.

First of all, a sober interpretation of the available data points to the fact that the economic reality at the turn of our century does, in no way, resemble the notion of a single and uniform global economy (cf. Section 2). Even though the economies of advanced industrial countries are currently more integrated than they used to be — especially as far as capital markets are concerned — substantial home biases still exist and do not seem to be on the verge of disappearing. Moreover, a detailed analysis of the empirical facts clearly demonstrates that the extent to which individual countries and industries have been exposed to global market integration is not uniform. These facts should be kept in mind when speculating about the possible consequences of 'globalisation.'

How strong are the constraints imposed on national fiscal policy by the 'triad' of globalisation forces, i.e. goods- and capital-market integration, and the spread of modern information and communications technologies? The general picture drawn by the few econometric studies available thus far does not lend support to any alarmist view. At an aggregate level, many of these studies find no negative relationship between globalisation and the nation states' ability to conduct independent fiscal policies.

For many observers, this result may come as a surprise since they have become accustomed to the point of view focusing exclusively on the 'efficiency effect' of globalisation. The efficiency hypothesis maintains that global trade- as well as capital-market integration (in conjunction with the new information and communications technologies) exert a downward pressure on the supply of social welfare programmes since such programmes are supposed to (1) represent a severe liability for the export sector in a competitive global environment and (2) be hard to finance in an environment characterised by footloose productive and financial capital. By neglecting the demand side, one arrives at an unambiguous negative result: globalisation increases the cost of social welfare programmes and thus leads to a retrenchment of the welfare state. This portrait of the globalisation-welfare state nexus needs to be redrawn, however, if one acknowledges the fact that globalisation exerts an influence not only on the supply side, but also on the demand side of the political market. The demand-side effects, which are summarised in the literature under the heading 'compensation effect,' propose that political forces (electoral or political support considerations) cause globalisation-induced redistribution to be moderated, i.e. globalisation-induced losses are *compensated* via fiscal policies. Demand for social welfare

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programmes thus increases in the course of globalisation which, *ceteris paribus*, boosts the welfare state. The crucial question is therefore:

> whether the incentives to compensate citizens for market dislocations are dominated by the cost of so doing in the global economy (Garrett and Mitchell, 1997, p. 9).

Recasting the analysis in a demand-supply framework demonstrates that it is impossible to unambiguously determine the influence of globalisation on the conduct of national fiscal policies without resorting to empirical investigations. The econometric results not supporting the 'efficiency view' of globalisation do not therefore contradict conventional economic wisdom.

Some scholars have speculated that globalisation narrows down the leverage of governments to conduct policies consistent with their specific ideological stance. The econometric evidence, however, does not support this hypothesis. Rather, it appears that partisan characteristics are still important in determining the level and pattern of public spending. What does appear to have an influence on how globalisation influences the conduct of public spending, though, is the design of the democratic institutions governing the interaction between government and economic interests. In countries endowed with political institutions facilitating collective representation of interests (social corporatism, consensus democracy, and centralisation), the compensation effect is relatively strong as compared to the efficiency effect of globalisation. One can therefore conclude (cf. Swank, 1997, p. 27) that the 'theory of diminished democracy' is overstated; democratic institutions and party ideologies remain important in shaping divergent policy trajectories in advanced capitalist democracies.

Viewing the income and expenditure side of government budgets separately, a cautious interpretation of the empirical evidence suggests that even though, in the aggregate, globalisation does not appear to have given rise to any significant retrenchment of the welfare state, it cannot be rejected out of hand that the tax *structure* may have been influenced by the globalisation process — the observed decline in effective average CIT (corporate income tax) rates and the convergence of CIT rates across countries is certainly compatible with such an interpretation. In appraising this development, one should keep two things in mind. First, the corporate income tax base and the corporate income tax revenue are rather small as compared to the income and value added tax. Only if the income and value added tax bases become significantly more mobile in the future course of global market integration, then the nation states' ability to finance welfare state programmes might be seriously affected. Second, even a major shift in the tax structure (a phenomenon which we currently do not observe — in particular we do not observe a redistribution of the total tax burden from capital to labour) does not necessarily imply that a social 'race to the bottom' will ensue; social policies will always be feasible if the *population at large* is in favour of an extended welfare state. Given the small corporate income tax base and the fact

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that no shift of the tax burden from capital to labour has taken place, it is not surprising that, on the expenditure side, no strong evidence points to a significant globalisation-induced change of the level of public spending. But also accustomed public expenditure patterns do not appear to have changed in the course of globalisation. This may be due, however, to a lack of studies using strongly disaggregated public expenditure data.

In recent decades, few economic issues have received as much attention as the globalisation debate. Cohen (1996), for example, laments that the globalisation issue has:

> spawned a veritable cottage industry of popular commentary, some of it frankly sensationalist if not downright alarmist in tone. Even otherwise levelheaded scholars have at times allowed themselves to be carried away by gnawing fears of instability and chaos (p. 269).

After having surveyed the few available studies which cast the cool eye of econometric analysis on the phenomenon of global market integration, we arrive at the conclusion that a doomsday view is not warranted. Globalisation is not about to exterminate the nation state.

If this is a fair assessment, why did the globalisation issue give rise to such an excited debate, and continues to do so? We concur with Garrett (1998a) who contends that:

> governments have promoted this association in the eyes of citizens — playing on inherent fears about international entanglements — when real problems facing the mixed economies of the OECD have little to do with international market integration.

One should add that other interests have also used this line of argument in advancing or defending their own political or economic position. Doing so is, however, not an innocent attempt to get the better of one's opponents, even if the advocated cause does have merits. Advocating, to name only two examples, a reform of weary and inefficient welfare state policies or an abolishment of public redistribution schemes which do not find the approval of the population at large, are proposals which can stand on their own (cf. Tanzi and Schuknecht, 1997). Evoking unsound if not xenophobic globalisation fears is a dangerous practice because it is liable to unleash protectionist backlashes which may more than offset the intended welfare gain.

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