Growth differentials in Europe:

An Investigation into the Causes. - Growth stimulating Policies

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Abstract

European countries have all a comparable level of industrial development, productivity, innovation and labour ethics. Yet economic performance and prosperity growth notably differ. Belgian wealth grew at the slow pace of 42% from 1984 to 2002. Ireland's wealth on the other hand rose by no less then 167% over the same 18 year period. In barely half a generation Ireland evolved from the second poorest to the second richest country of Europe. We found similar differences in job creation, as well as remarkable discrepancies in the economic growth rate during the last 20 year for most European countries. The cause of these growth differences is found in a divergent macro-economic management of the economy by the authorities in the EU-countries rather than in micro-economic differences between its citizens and businesses.

In a first part, we discuss recent publications and the newest developments in the economic theory about macro-economic and taxation policies. We have special attention for the Laffer theory relative to optimising tax receipts (1985) and the Barro-Armey theories (1990-1995) concerning optimising prosperity growth.

In the second part, we perform an empirical research into the causes of European growth differentials by means of a multiple regression analysis The main conclusion from this research is that two variables related to public policy are the main cause of weak growth performance: **excessive public spending** on the one hand and a **demotivating taxation structure** with excessive tax rates on work, income, savings and profit on the other hand. These two factors were found to be the most significant variables influencing growth among 25 factors examined. The results seem to be in line with other studies.

We conclude that authorities in many European countries, in particular Belgium, take a too large share of the GDP from the private sector. As a result, this sector lacks the resources to achieve its potential in wealth creation. Numerous well-intended government initiatives are contra-productive, and reduce the potential prosperity growth.

In part three we analyse a case study and compare two countries with opposite tax policies: Ireland with a relatively low public spending policy and a fairly flat tax structure and Belgium with high levels of public spending and a heavy tax burden on income versus a much lighter tax burden on consumption. We analyse the effects of both taxation policies on growth, state budget, public debt, job creation and social expenditure.

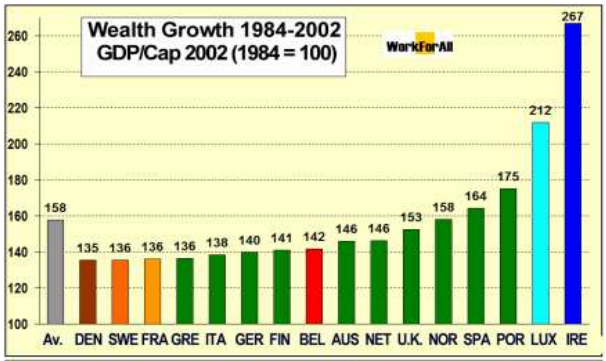
Ultimately, we look at possible scenarios that could boost growth. Most important is improving the incentives to work, to risk taking, investment and saving. A drastic shift of the tax burden on work and profit to consumption taxes, and raising the share of the private sector in the GDP, can contribute to this goal. Simulations show that an increase of the relative share of the private sector not only leads to stronger growth, but also to an increase of tax receipts in absolute figures.

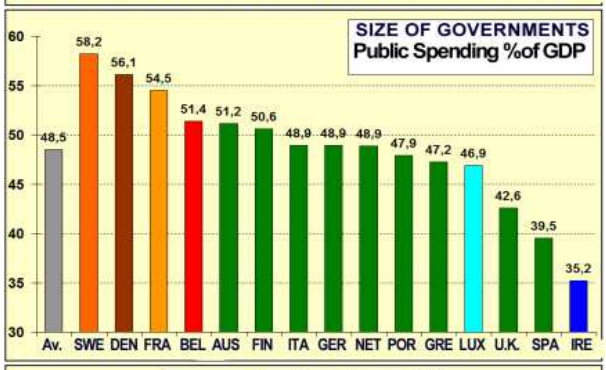
We conclude that only growth can create room for a solid financing of the generous social European system, as well as for the consequences of an ageing population and the many ecological and cultural projects. This confirms the overwhelming importance of setting economic growth as the prime social objective. In an era of unavoidable globalisation, we plead in favour of an immediate turnaround of the present growth obstructing policies.

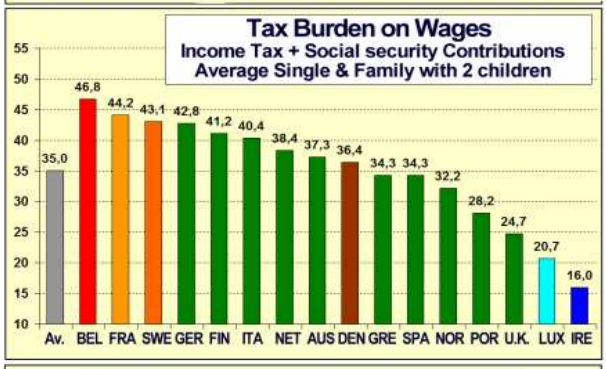
GROWTH PERFORMANCE IN EUROPE DIFFERS WIDELY.

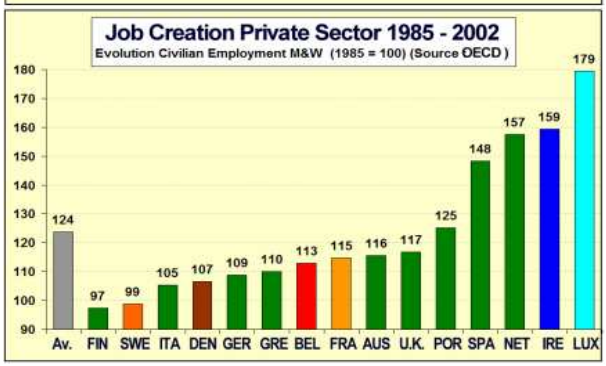
In this study we search for the causes of growth differentials within Europe, and have special interest in finding the reasons behind Belgian's weak social and economical performances. In economic and political analysis slow growth is often attributed to external factors such as cyclical fluctuations or high oil prices. Considering other countries like Ireland and Luxembourg are performing well under the same conditions, external factors can at the most be part of the problem. Obviously there are a large number of factors influencing a country's growth prospects. Empirical research has also extensively examined behavioural differences and micro-economic differences between industries of different nations as a cause of growth differentials.

Productivity and labour ethics not translated in growth and wealth.









Differences in micro-economic potential are not automatically being translated into higher wealth. Belgium for instance belongs to the world top as to productivity, education levels, creativity, commercial spirit of their entrepreneurs and export per capita. Belgium also has a highly automated industry which is well represented in new sectors and delivers top quality in traditional sectors of industry. This excellent potential is however not resulting in a substantial growth rate, or in welfare for the population. Europe's public sector being so large, obviously also public policy must have a predominant effect on the economic performances.

A quick look at the facts:

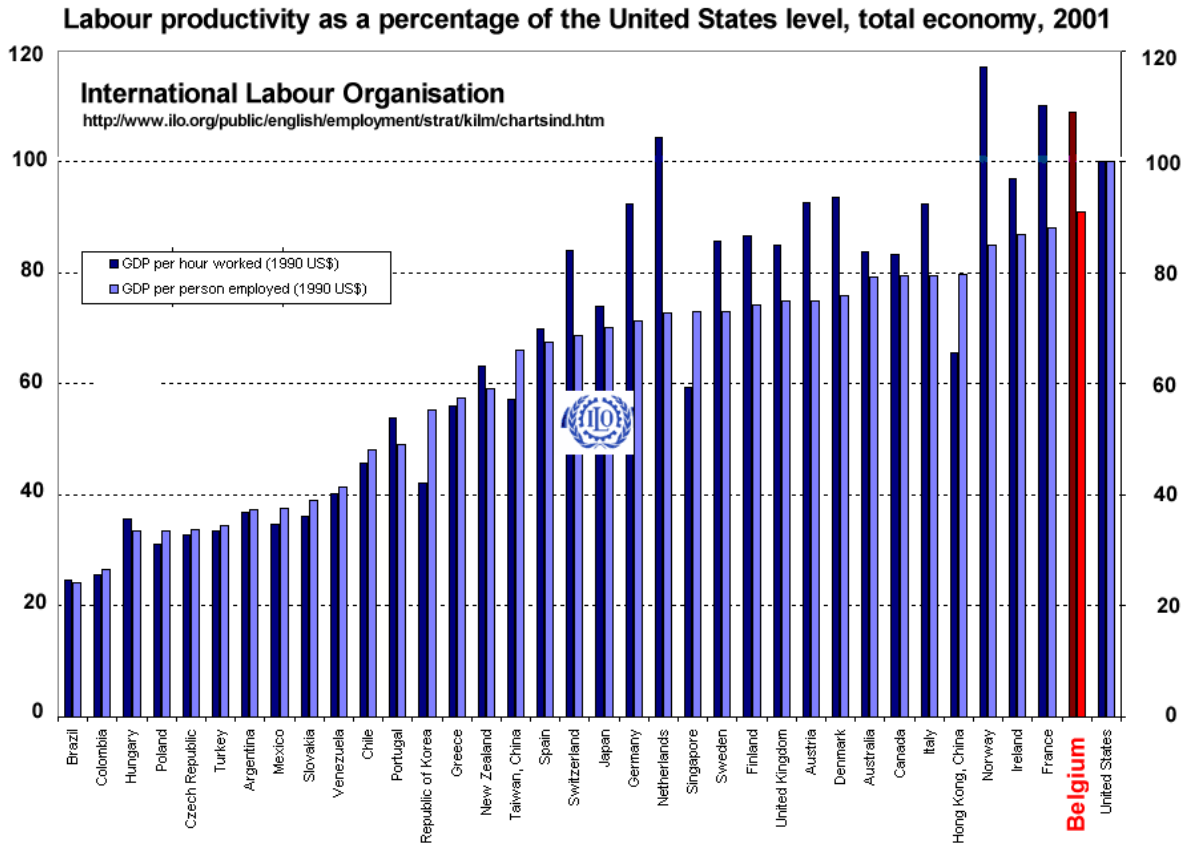
Most European governments control over 50 % of all economic output, and the other half is strictly regulated by laws, decrees or other restrictions. A quick look at Europe's performances seems to confirm that big government coincides with poor prosperity growth. This fact has been widely described in the Anglo-Saxon economic literature. However this aspect is seldom mentioned and often ignored in the continental European literature. The graphs also seem to confirm the intuition that excess labour taxation has a strong negative effect on job creation.

Big Government and Taxation Structures:

Ireland is by far Europe's best performing country. Its economic and fiscal policies are at least worth examining and considering for other countries. Ireland is characterised by small government expenditures as compared to other countries, and by a flat tax structure. As economic literature suggests high taxes on income tends to demotivate the active part of the population, and discourage risk-taking, investment and growth. High taxes on labour and income make labour expensive and encourage automation at the expense of job creation. High taxes on saving discourage investing. Heavy taxes on domestic production factors and a relatively low tax on

consumption in fact subsidise the import of goods from foreign countries. The coincidence of Ireland's unique taxation policy and its excellent performances seems to confirm the economic theories of taxation.

The causes of Belgium's weak performance is clearly not the failure of its industry and its agriculture, These cannot be attributed to a lack of managerial organisation, nor to a lack of work zest of the employees. Obviously fundamental causes are more likely to be found in the macro-economic management by the government. In this study we have therefore paid special attention to the macro-economic strategy and the taxation policies in particular.



Source: International Labour Organisation.
http://www.ilo.org/public/english/employment/strat/kilm/trends.htm

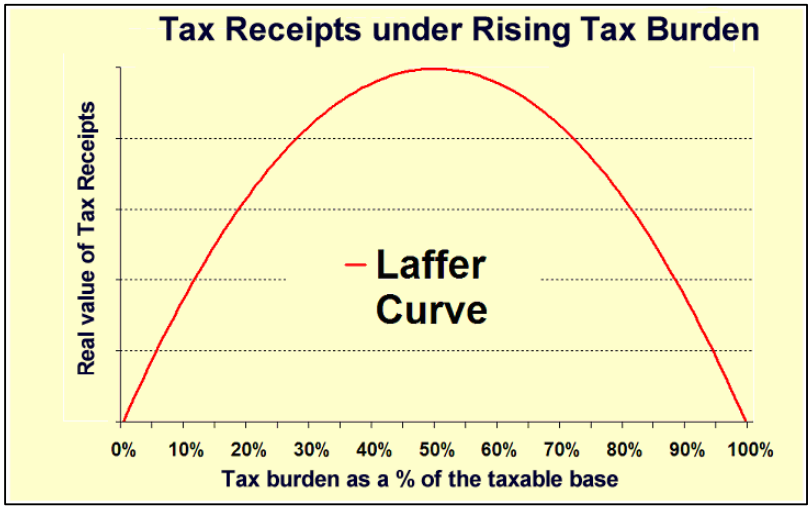
The graph of the "International Labour Organisation" illustrates that the Belgian productivity per worked hour is the third highest in the world after France and Norway. Norway however thanks its high productivity to its large oil extracting industry. The Belgian productivity per employee is even ranked second in the world (after the USA). France's and Belgium's productivity are higher than Ireland's but that does not translate into higher wealth and growth.

PART I : The Economics of Taxation

Laffer: maximising tax receipts.

Laffer analysed how tax receipts evolve when the tax burden increases. Starting from a hypothetical situation where the tax rate is zero, tax receipts are of course also zero. In the opposite case, when tax rates are raised to 100% (or more) tax receipts will also decrease to 0, as tax payers have no motivation to broaden the taxable base (work, profit). In such case, they do the utmost to escape total confiscation, either by stopping to work, either through all sorts of escape mechanisms.

Gradually increasing from zero, raising taxes will result in an increase of the tax receipts that are proportional with the tax rate hike. Yet further increase of tax rates results in tax receipts starting to lag behind, as resistance against the tax burden gradually grows. Taxpayer gradually experience rising taxes as unreasonable, and gradually mechanisms of tax evasion (working less) or even tax fraud become popular. Beyond a certain critical optimal tax level tax yields even start to decline as the tax rate rises.



Illegal tax fraud is only a marginal part in these evasion mechanisms. Legal evasion mechanisms caused by demotivation are of much larger importance. These mechanisms are found in every aspect of daily life and in all classes of the population.

Excessive income tax rates will cause workers to avoid overtime or one of the spouses will limit his productive contribution to a part-time job. In addition, strange evasion mechanisms are set in motion. Surgeons starting their own painting jobs for instance. Not because they are so eager to do a painting job, but simply because an additional hour operating yields them less then the gross wage they would pay a professional painter to do it. On the micro-economic level such surgeons make the right decision as a good father of the family. On the Macro-economic level (considering the effect on the total GDP output), his decision is of course pure waste. Surgeons valorise their expensive training much more effectively operating than painting, and they presumably would feel much better about it. Excessive taxes simply erase the advantages of specialisation, the basic principle of each barter economy.

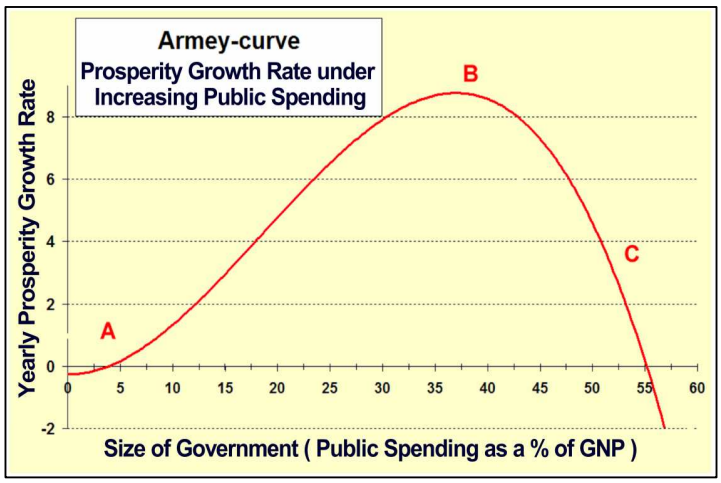
The evasion mechanisms are not a consequence of bad intentions. They are individual's expression of a natural desire to optimise the yield of their individual work and capital under given circumstances, weighing benefits against efforts and risks. This is inherent in every society regardless political or economical structures.

Armey: Optimising growth prospects.

Laffer answers the question of optimising tax rates as a function of maximal tax receipts. However this optimal taxation level does not coincide with the tax level at which social objectives such as wealth creation and job creation are optimised.

Barro (1990) and Armey (1995) are more concerned about finding the optimal tax burden and government spending level in function of maximising wealth creation. This aspect was popularised in 1995 by Richard Keith "Dick" Armey (°1940), when he proposed his Armey curve.

Armey argues that non-existence of government causes a state of anarchy and low levels of wealth creation because of the absence of the rule of law and protection of property rights. In such societies, little incentive exists to save and invest, because of the continuous threat of expropriation. Furthermore, the total lack of essential collective infrastructure leads to poor productivity and low levels of wealth creation.



Similarly, when all input and output decisions are made by government, wealth creation is low. As Laffer argued before him, citizens then also have very little incentive to productive contribution, considering the authorities confiscate the total yield of their efforts.

However, if there is a mix of private and government decisions on the allocation of resources, output is larger. Initially as the government sector builds up, the wealth creation will gradually grow larger. A state of law and order is being instituted, collective infrastructure such as roads, bridges and means of communication are being built, all increasing productivity. Also establishing education structures and social programs destined at preventing the exclusion of disabled boost wealth creation. This evolution is projected as the part of the curve between Points A and Point B. In the early stages of development, the productivity of well conceived collective spending is often higher than the average productivity of private spending. Therefore, such government spending will lead to higher wealth creation.

Nevertheless, additional public projects increasingly lose their productivity advantage over private investment, and heavier tax burdens for financing government spending will increasingly demotivate people to productive contribution. Social programs also loose their growth effect when they tend to provide incentives to leave the productive sector rather than preventing exclusion.

At some point, growth-enhancing features of government spending gradually diminish and further expansion of government does no longer lead to output expansion. At that point, the marginal productivity of public spending equals the marginal productivity of private spending, and the benefits from increased government spending become zero.

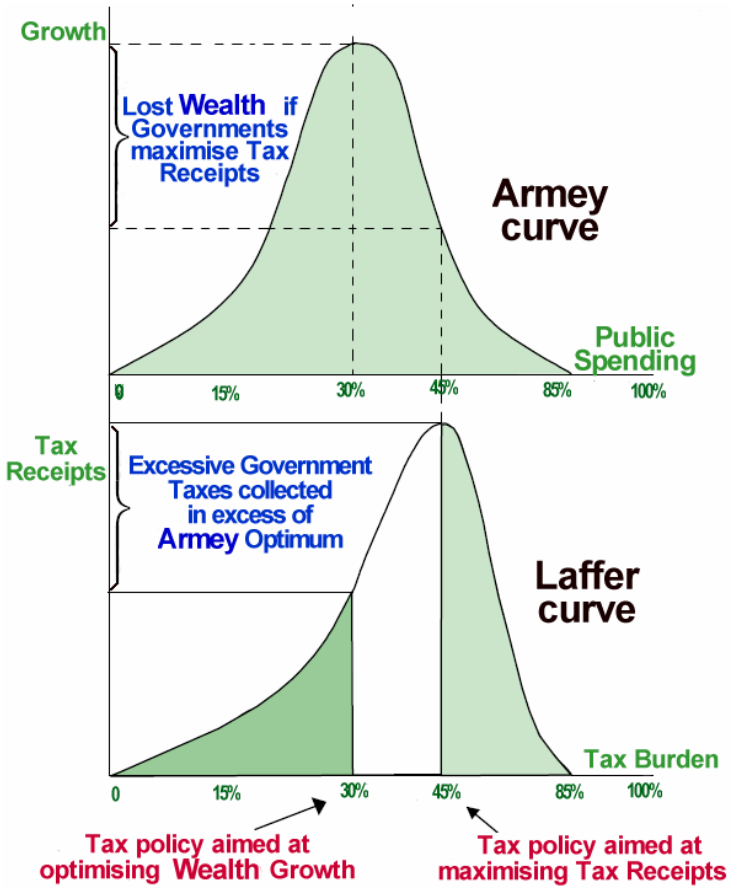
Beyond this optimal point B additional government spending lead to lower wealth creation, as ever more scarce resources are withdrawn from the private sector, where they could have been used more productively (evolution from Point B to Point C.) The shape of the Armey-curve therefore has a similar shape as the Laffer curve, the optimum however being at a substantially lower taxation level than the Laffer optimum.

Empirical evidence

The Flemish authorities have experienced the benefits of the Laffer-effect when then drastically lowered the inheritance and gift taxes. Surprisingly, the tax receipts started to rise significantly. Citizens experienced the new rates as fair. It meant good business for the Flemish tax authorities as well as for the taxpayers.

Remains the question at what level do we find the optimal tax rate? This depends on the kind of tax, the difficulty of tax evasion, the risk connected to fraud, and not in the least the citizens' feelings about the good usage of tax receipts by the authorities. In countries where the public appreciates that public money is well spent for the benefit of all, citizens will rather gladly contribute to their equitable share in the public sector. In countries where governments are corrupt, wasting public money, or give inequitable advantages to particular groups, evasion mechanisms start at an earlier point, and the optimum tax rate will tend to be lower.

It is generally believed that for personal income taxes the Armey optimum at which authorities maximise tax receipts will lie between 40% and 50 %. Rates above this optimal point will be considered by the taxpayer as unreasonable and evasion mechanisms will arise. (Less work, less investments and less economic activities) and even illegal evasion (fraud) techniques will develop.



Europe's Empirical Armey Optimum

In the U.S., numerous empirical studies were undertaken to find the empirical optimal size of government spending at which growth prospects are optimized. Researchers Vedder and Gallaway (1998) estimate the optimal US spending for the period 1947-1997 at 17,45% of the GNP. Pens (1991) estimate it at 20%. For Canada, the optimal size would lie around 27%.

In Europe, the question of optimal size of government has remained taboo. Although the economic importance of this question is overwhelming, this domain of investigation remained unexplored for over 15 years, and it was a researcher from a former communist country who first estimated the optimal size of Government for the European countries. (Primoz Pevcin, Ph. D. University or Ljubljana, (Sept 2004).

For 12 European countries, including Belgium (1950-1996) Primoz estimates the average optimal size of government at between 36.6 and 42,12% of GNP, depending on the chosen model. Primoz further argues that this optimum differs per country according to their social and economical structure. He calculated the empirical optimal size for eight European countries as follows:

Country	Size of Government 1996 (Public Spending as a % of GNP)	Armey-Curve Optimum	Percentage Oversize
Italy	44.90	37.09	17.39
France	54.73	42.90	21.62
Finland	58.74	38.98	33.64
Sweden	65.02	45.96	29.31
Germany	48.72	38.45	21.08
Ireland	39.60	42.28	- 6.77
Netherlands	51.97	44.86	13.68
Belgium	52.97	41.91	20.88
Average			18.85

PRIMOž PEVCIN (2004) *University of Ljubljana, Does optimal size of government spending exist ?* http://www.soc.kuleuven.ac.be/pol/io/egpa/fin/paper/slov2004/pevcin.pdf

Size of Governments in selected countries

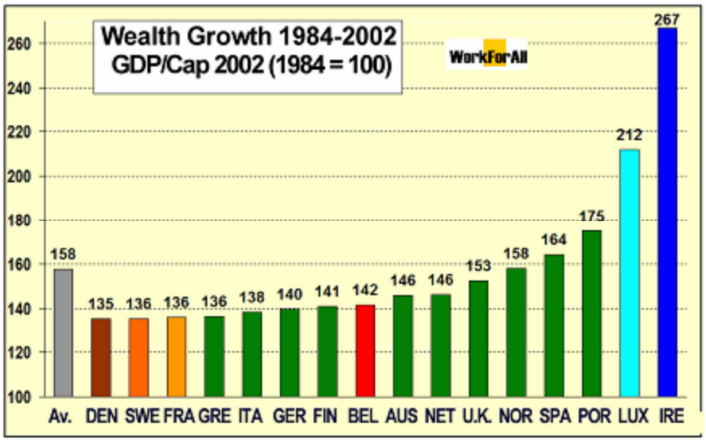
Size of Governments in selected countries : 1870-1998 Public Spending as a % of GNP								
	1870	1913	1920	1937	1960	1980	1990	1998
Australia	18,3	16,5	19,3	14,8	21,2	31,6	34,7	32,9
Austria	10,5	17	14,7	20,6	35,7	48,1	48,6	51,7*
Belgium	-	13,8	22,1	21,8	30,3	58,6	54,8	49,4
Canada	-	-	13,3	18,6	28,6	38,8	46	44,7*
France	12,6	17	27,6	29	34,6	46,1	49,8	54,3
Germany	10	14,8	25	34,1	32,4	47,9	45,1	46,9
Italy	13,7	17,1	30,1	31,1	30,1	42,1	53,2	49,1
Ireland	-	-	18,8	25,5	28	48,9	41,2	37,6*
Japan	8,8	8,3	14,8	25,4	17,5	32	31,7	36,9
New Zealand	-	-	24,6	25,3	26,9	38,1	41,3	47,1*
Netherlands	9,1	9	13,5	19	33,7	55,2	54	47,2
Norway	5,9	9,3	16	11,8	29,9	37,5	53,8	46,9
Spain	-	11	8,3	13,2	18,8	32,2	42	43,3*
Sweden	5,7	10,4	10,9	16,5	31	60,1	59,1	58,5
Switzerland	16,5	14	17	24,1	17,2	32,8	33,5	37,6*
United Kingdom	9,4	12,7	26,2	30	32,2	43	39,9	40,2
United States	7,3	7,5	12,1	19,7	27	31,8	33,3	32,8
Average	10,8	13,1	19,4	23,4	28,1	41,2	43,9	44,3

Source: WILLIAMS DE BROË (2002), *Is High Public Spending Good or Bad for You?*
*1996 data not 1998. Sources: Tanzi and Schuknecht (2000), Table 1.1, pages 6 & 7. International Monetary Fund (IMF), World Economic Outlook, May 2000 (see especially IMF Table 5.4, page 172).
http://www.cf.ac.uk/carbs/econ/matthewsk/PubSpendFinal.pdf

PART II Empirical research into the causes of growth differentials

Growth Differentials

Growth differences between the European countries are remarkable. In spite of the fact that European countries have very similar states of development and labour ethics huge growth differentials are observed. In the 18 years period from 1984 to 2002 Denmark grew with 35% only. Ireland's wealth on the contrary rose by no less then 167% over the same period. In barely half a generation Ireland evolved from the second poorest to the second richest country of Europe. Similar differences in job creation are observed.



The observation raises the question as to what causes these remarkable growth differences, and if other countries could achieve the same economic and social performance like Ireland or Luxembourg.

Causes As Described In Literature

A number of factors that boost prosperity are described in the economic literature. According to Keynesian theory, deficit spending and low interest rates can boost slow growth. Other authors have been mentioning exchange rate changes, rising education levels, or boosting consumption as means of boosting economic growth. Politicians have been promising that the Euro would boost our prosperity.

Although seldom mentioned, or often minimised in Continental European literature, American literature overwhelmingly demonstrated the robust negative relation between growth and government spending. The fact that most fundamental research in Europe is government sponsored by one way or another is very likely the cause of this transatlantic divergence of opinions. Gwartney, Laffer and Armey have performed pioneering investigation on this subject. Gwartney examined the causes of growth differentials between the OECD countries over a long period of 1960 until 1996. He found that in countries and periods in which government spending was smaller than 25% of GDP rose on average with 6.6%. Countries with government spending over 60% realised growth rates of 1,6% only.

Investigation Method: Multiple Regression Analysis

In our investigation we weigh the many factors determining growth such as described in economic literature. We are therefore relying on a multiple regression analysis. Multiple regression analysis allows calculating with mathematical precision the exact individual effect of many simultaneously playing factors. It is with the same technique, that medical science establishes relationships between living or feedings habits on our health, life expectation or illness phenomena. Multiple-regression also allows determining for each of the independent variables whether the relationship to the dependent variable is significant or not, and how strong the relevance of each factor is.

Differences with Prior Studies

Our investigation is specific and original for two reasons: We bring together a rather high number of growth determining factors such as described in both Anglo-Saxon and continental European economic literature in this one multiple regression analysis. The relative high number of determining factors should allow explaining growth differentials to a higher degree and with higher significance than studies considering fewer determining factors only.

Unlike most other growth models, we furthermore we implement the recent Barro-Armey theories about government spending in our growth model. According to Barro and Armey the relationship between government spending and growth is a non-linear one, characterised by a country-specific optimum government spending level. Very recently, Primoz (2004) calculated optimal levels of government spending for European countries around 35%-40% of GDP. In countries with government spending below this optimum, additional government spending leads to higher growth rate, in countries with government budgets above this optimal level additional government spending leads to slower growth.

Most prior growth models have been considering vast periods from 1970 to 2003, during which both government under-spending and overspending have been co-existing. As a result, positive and negative growth effects of government spending on both sides of the Armey-optimum have been compensating in the linear regressions. This has resulted in grossly underestimated coefficients and significance of the growth effect of government spending in prior growth models.

For this reason, we limit our research project, with particular interest for negative growth effect of excessive public budgets, to countries and to a period during which government spending was above the optimal level. In this range a linear relationship as supposed by linear regression can be presumed.

Having selected countries with excessive government spending only, the conclusions of our findings are of course relevant to such countries only, and certainly do not apply to developing countries, still in the stage of building up collective infrastructure or the state of law.

The Growth Model

By means of multiple linear regression analysis, we determined the causes of the growth differentials between 17 European countries (the 12 Euro countries + 3 Non-Euro EU-members (UK, DK, SW). The two non-EU Countries Switzerland and Norway were also considered in the growth model allowing determining the growth effect of participation in the European Union.

The investigation covers a period of 18 year from (1985-2002), making sure no period with obvious public under-spending is considered, and making sure the pre-conditions of linearity in multiple regression analysis are met.

In total we have 306 observations (17 countries x 18 year).

Following the economic theory we assume that prosperity growth in a country in a particular year is determined by different factors. These can be external factors, country-specific characteristics or state intervention in the economy.

We have special attention for the factors which can be influenced by the authorities, and which are described in the literature as influencing growth; most particularly the size of Government Spending, the structure of tax burden, the budgetary deficit and the short term interest rates.

The relation was investigated between growth performances and 25 plausible independent variables. Regressions were calculated with time-lags of 0, 1, 2, 3, and 4 year.

After elimination of the variables with excessive collinearity following variables were retained:

Dependent Variable: Real prosperity Growth: (GNP/cap at price level and PPP of 1995) (1984=100)

Independent Variables:

1. Time variable : years 1985 –2002

2. Country-specific characteristics

- age structure (% population above the 65 year)
- level of education: net participation at secondary education %
- level of education: Percentage of the population of 25 to 34-year-olds that has attained tertiary education
- population Density (Pop/km²)
- Size of the country: populations number (advantages of scale?)
- Share of the informal economy in the total economy (estimate on basis of electricity consumption and amount of cash money in circulation
- prosperity level at the beginning of examined period (GDP 1984)
- geographical location (latitude of capital)

3. External factors

- Crude Oil Price (dollars per barrel - constant 2002 dollars)
- international economic climate (average Unemployment rate: commonly used definitions)
- Exchange rates - national currency per US dollar: % change against previous year
- €/$ currency rate

.4. Country-specific Socio-economic policy variables

- government spending as a % of GNP
- Household final consumption expenditure % of GDP
- Tax burden on consumption (taxes on goods and services as a % of GNP)
- Tax burden on income and profit as a % of GNP
- Social Security Contributions as a Percentage of GNP
- Participation rate (Employment / population ratio)
- Inequality index (average ratio incomes: of the 2 lowest and 2 highest deciles
- Annual working hours / employed

5 Traditional Keynesian growth policies (country-specific)

- Real Short-term interest rate (Nominal rate – inflation)
- Real Long Term interest rate (10yr-note : Nominal rat – inflation)
- Budgetary deficit: Government financial balances Surplus (+) or deficit (-) as a % of GDP
- Inflation rate

6. EU – dummy en EMU – dummy

- Binary variable “membership of the EU”
- Binary variable “membership of the ECU”

We assume that prosperity growth is either positively or negatively influenced by above-mentioned factors; or that:

Growth = *f* (Size of Government + Consumption Taxes + Income Taxes + Social Contributions + Consumption Rate + Interest Rates + Budgetary Surplus + 19 other Country Specific Characteristics)

Or symbolically can note the multidimensional regression line as follows:

$$\text{Ln (GR)} = a.\ SG + b.\ CT + c.\ IT + d.\ SC + e.\ CR + f.\ STI + g.\ BS + \text{sum } h_i\ CSC$$

Multiple regression analysis allows to calculate on basis of the statistical data the coefficients (elasticity's) a,b,c,d,e,f,g and h_i of the regression function.

Multiple regression analysis also allows calculating the relevance of the relation between the dependant and each of the independent variables. This significance of each relation is expressed as a sig-value, which can be interpreted as the statistical chance that no relation between the dependent and independent variable exists. In most scientific research, independent variables showing a maximal sig-value of 0,05 are believed to have a relation to the independent variable. Some researchers consider a 0,1 value as safe for accepting the relationship.

Where available we used OCDE data. A few missing figures of the 9000 independent variable- data needed for this regression analysis were estimated according to the best available practices (interpolation). Data distribution of the dependent variable fell within the standards of a normal distribution. Except for the dummies and data already expressed as a percentage, figures were recalculated to their logarithm in order to allow interpretation of regression coefficients as elasticity's.

REGRESSION RESULTS

The regression analysis results in a remarkably high regression coefficient (R^2=0,93). Growth differentials between the European countries examined were explained for 93% by the enumerated factors. Only 7% of the growth differentials must be attributed to factors other than these considered in the investigation.

Most of the results are consistent in the 5 regressions with-lags of 0,1,2.3 and 4 year, and in several alternative growth models, which confirms the robustness of the model described.

Coefficients and significance values of 3 different models, combining different independent variables are listed in the tables below:

Results of 3 growth models, each with time-lags of 0,1,2,3 and 4 years
Variables ordered per descending average significance of the 5 regressions with time-lags of 0,1,2,3 and 4 years,

MODEL 1

	significant at the 99,99% reliability level
	significant at the 99% reliability level
	significant at the 95% reliability level
	significant at the 90% reliability level
	significance below the 90% reliability level

			Coefficients						Significantie.					
	var N°	variabele	0 time lag	1y time lag	2y time lag	3 y time lag	4 y time lag	Average	0 time lag	1y time lag	2y time lag	3 y time lag	4 y time lag	mediaan
	1	(Constant)	-35,344723	-31,135179	-30,76861	-32,855122	-38,046037		1,026E-20	3,878E-20	1,319E-14	7,595E-11	1,069E-10	
	1	Tijd	0,0205513	0,0190857	0,0186148	0,0195456	0,0212747	0,0198144	1,026E-20	1,333E-20	1,77E-20	7,764E-17	7,714E-15	1,77E-20
	7	Household Consumption	-0,0205543	-0,0193084	-0,018249	-0,0175156	-0,0166431	-0,0184541	1,026E-20	1,333E-20	1,77E-20	2,41E-20	5,272E-15	1,77E-20
Ln	2	Initial wealth	-0,1753424	-0,2095518	-0,2510903	-0,288159	-0,3291166	-0,250652	1,104E-08	1,941E-10	1,375E-11	2,285E-11	2,865E-11	2,865E-11
	6	Size Government	-0,0057849	-0,006868	-0,0067908	-0,005567	-0,0033919	-0,0056805	5,139E-07	4,125E-08	9,907E-07	0,0004855	0,0592811	9,907E-07
Ln	29	unemployment	-0,087387	-0,07587	-0,0607303	-0,0451907	-0,0303148	-0,0598986	4,585E-14	1,711E-10	2,67E-06	0,0019703	0,065151	2,67E-06
	3	% Popul.>65y	0,0194916	0,0192436	0,0189858	0,0176917	0,0176387	0,0186103	5,413E-08	2,807E-07	3,437E-06	0,0001293	0,0006919	3,437E-06
	8	Income Tax	-0,006003	-0,0062377	-0,0069636	-0,0085379	-0,0104268	-0,0076338	7,521E-06	1,554E-05	1,896E-05	1,031E-05	4,068E-06	1,031E-05
	11	Participation	-0,0051608	-0,0049284	-0,0050358	-0,0049666	-0,0051499	-0,0050483	2,611E-07	2,273E-06	1,111E-05	0,0001226	0,0003535	1,111E-05
	13	inflation	0,0005072	-0,0036444	-0,0078536	-0,0097729	-0,0099659	-0,0061459	0,7378703	0,022629	1,37E-05	2,927E-06	2,147E-05	2,147E-05
Ln	25	hours worked	0,4797287	0,4594148	0,4132081	0,3600998	0,314183	0,4053269	1,027E-08	2,011E-07	2,359E-05	0,0013863	0,0140506	2,359E-05
	10	Consumption Tax	0,0122473	0,0132108	0,0121989	0,007216	-0,000422	0,0088902	9,669E-07	1,277E-06	6,957E-05	0,0397765	0,9153432	6,957E-05
	21	Education2nd L	-0,0013426	-0,0023093	-0,0031089	-0,0029108	-0,0021912	-0,0023726	0,0020496	6,981E-06	5,492E-07	9,093E-05	0,0087172	9,093E-05
	27	soc tax	-0,0026005	-0,002223	-0,0023841	-0,0035699	-0,0050676	-0,003169	0,0023965	0,0148763	0,0186663	0,0027798	0,0002344	0,0027798
	30	EU	0,0277083	0,0364299	0,0387214	0,0350791	0,0283641	0,0332605	0,0169993	0,0032868	0,0048914	0,027054	0,1166891	0,0169993
Ln	5	Pop/km²	0,0181428	0,0188464	0,017062	0,0139294	0,0108138	0,0157589	0,0055459	0,0068099	0,0264454	0,114126	0,2774598	0,0264454
	12	Income Dif	0,0161487	0,0113276	0,0092333	0,0101165	0,0126293	0,0118911	7,623E-05	0,0091241	0,0557918	0,0660008	0,0411632	0,0411632
Ln	26	latitude	-0,0047998	0,0570251	0,118909	0,1770268	0,2615597	0,1219442	0,9285055	0,3221459	0,0676466	0,0180975	0,0023375	0,0676466
Ln	18	d echange rate	0,0355764	0,0501036	0,0286646	0,027821	0,0034997	0,0291331	0,0631661	0,0114647	0,1884008	0,2434697	0,8921736	0,1884008
	16	budget	-0,001562	-0,0018202	-0,0024041	-0,0017975	0,0001599	-0,0014848	0,2285878	0,1933103	0,1279027	0,3280771	0,9378104	0,2285878
	15	Real Short T intrest	0,0039476	-0,0005346	-0,0017935	-0,0031507	-0,0031234	-0,0009309	0,043803	0,7892847	0,406379	0,190143	0,2408434	0,2408434
Ln	20	OIL Pr	-0,0202214	-0,0274186	-0,0337602	-0,0162226	0,021565	-0,0152116	0,241269	0,1247523	0,0789008	0,4880046	0,3984131	0,241269
	22	Educ 3rd L	0,0011416	0,0002962	-0,0002518	-0,0010939	-0,0022548	-0,0004326	0,1332536	0,7202721	0,7875431	0,3192778	0,0798643	0,3192778
	17	EMU	0,0024894	-0,0061255	-0,0247243	-0,0401503	na	-0,0171277	0,8296217	0,6275017	0,0932037	0,0333388	na	0,3603527
Ln	19	€/$	-0,0207937	-0,0112522	0,0109293	0,0501755	0,0566566	0,0171431	0,3782534	0,6445184	0,6849296	0,0988135	0,0938606	0,3782534
Ln	4	Population	0,0043624	0,002487	-0,003388	-0,0132116	-0,0255585	-0,0070617	0,4698074	0,6999858	0,6412719	0,1225914	0,0096671	0,4698074
	23	ShadowEconomy	-0,0012723	-0,0005358	-9,897E-05	0,0010714	0,0021503	0,0002629	0,2521335	0,6508943	0,9410717	0,5003739	0,2440058	0,5003739
	14	Real Long T Intrest	0,0073631	0,0038672	-9,531E-05	-0,0003616	-9,749E-05	0,0021352	0,0018006	0,1125444	0,9714836	0,9038698	0,9766501	0,9038698
Ln	gdp	**R²**	**0,936**	**0,933**	**0,922**	**0,907**	**0,892**							
		n	**306**	**289**	**272**	**255**	**238**		306	289	272	255	238	

MODEL 2

	significant at the 99,99% reliability level
	significant at the 99% reliability level
	significant at the 95% reliability level
	significant at the 90% reliability level
	significance below the 90% reliability level

		Coefficients						Significantie.					
var N°	variabele	0 time lag	1y time lag	2y time lag	3 y time lag	4 y time lag	Average	0 time lag	1y time lag	2y time lag	3 y time lag	4 y time lag	mediaan
1	(Constant)	-33,532724	-30,328216	-27,785601	-28,480915	-30,965802		1,01E-20	1,303E-19	2,259E-13	1,685E-09	1,405E-08	
7	Household Consumption	-0,0211447	-0,0200459	-0,0192358	-0,0187141	-0,0180022	-0,0194286	1,01E-20	1,312E-20	1,74E-20	2,365E-20	7,88E-17	1,74E-20
1	Tijd	0,0183117	0,0168786	0,0159429	0,0165545	0,0179748	0,0171325	1,01E-20	1,312E-20	1,576E-19	1,389E-13	4,515E-12	1,576E-19
Ln 2	Initial wealth	-0,1319885	-0,1696133	-0,2084834	-0,2448273	-0,2843817	-0,2078588	1,5E-05	2,074E-07	1,261E-08	6,734E-09	4,5E-09	1,261E-08
8	Income Tax	-0,0078277	-0,0081068	-0,0090632	-0,01089	-0,0131277	-0,0098031	1,099E-08	3,056E-08	3,095E-08	1,385E-08	3,705E-09	1,385E-08
Ln 25	hours worked	0,5829074	0,564377	0,5281881	0,482459	0,4487061	0,5213275	1,322E-11	3,835E-10	9,171E-08	1,771E-05	0,0004017	9,171E-08
6	Size Government	-0,0065734	-0,007588	-0,0073867	-0,0060841	-0,003835	-0,0062935	4,391E-08	5,248E-09	2,766E-07	0,0002109	0,0378275	2,766E-07
13	inflation	-0,0005909	-0,0045632	-0,0085564	-0,0102291	-0,0103824	-0,0068644	0,7069617	0,0059008	4,833E-06	2,011E-06	1,648E-05	1,648E-05
30	EU	0,0440163	0,0525286	0,0555663	0,0520071	0,0467362	0,0501709	0,0001911	2,781E-05	6,025E-05	0,0010185	0,009164	0,0001911
10	Consumption Tax	0,012442	0,0131014	0,0115677	0,0062022	-0,0018194	0,0082988	1,943E-06	3,832E-06	0,0002659	0,0851515	0,6543544	0,0002659
23	ShadowEconomy	0,0024748	0,0031285	0,0038387	0,0052403	0,0066752	0,0042715	0,0058979	0,0010737	0,0003057	2,286E-05	3,111E-06	0,0003057
Ln 5	Pop/km²	0,0286013	0,0289339	0,0269606	0,0237836	0,0210799	0,0258718	1,418E-05	3,422E-05	0,0004623	0,0065824	0,0324395	0,0004623
21	Education2nd L	-0,0012667	-0,0021576	-0,0027493	-0,0023503	-0,001484	-0,0020016	0,0053683	5,052E-05	1,475E-05	0,0016586	0,07422	0,0016586
3	% Popul.>65y	0,0122087	0,0122843	0,0120028	0,0111135	0,0112427	0,0117704	0,0003234	0,0005152	0,0018868	0,0112594	0,0240242	0,0018868
Ln 29	unemployment	-0,0491116	-0,0401494	-0,0240169	-0,0090702	0,0070416	-0,0230613	3,49E-08	1,375E-05	0,0169896	0,4282042	0,5906731	0,0169896
12	Income Difference	0,0133605	0,0084118	0,0066326	0,0074821	0,0096248	0,0091024	0,0015279	0,0597232	0,1816964	0,183024	0,1259012	0,1259012
27	soc tax	-0,0011468	-0,000957	-0,0012789	-0,0026927	-0,0043116	-0,0020774	0,1735626	0,2909724	0,2082757	0,0251482	0,0019678	0,1735626
Ln 26	latitude	-0,0379986	0,0281947	0,0876392	0,1509394	0,2406218	0,0938793	0,4946848	0,6363938	0,1912554	0,0492139	0,0062371	0,1912554
Ln 18	d echange rate	0,0293044	0,0447536	0,026486	0,0262281	0,0016343	0,0256813	0,1425793	0,029666	0,2415045	0,285918	0,9509063	0,2415045
15	Real Short T intrest	0,0043531	-0,0002037	-0,0015785	-0,0030156	-0,0029303	-0,000675	0,0336736	0,9220863	0,4813964	0,2236284	0,2843768	0,2843768
22	Educ 3rd L	0,0005411	-0,0003669	-0,0010125	-0,0020404	-0,0034363	-0,001263	0,4910626	0,6659088	0,2890102	0,0653274	0,0075692	0,2890102
Ln 4	Population	0,000408	-0,0010876	-0,0076076	-0,0176302	-0,0305745	-0,0112984	0,9480943	0,8706465	0,3099637	0,0441261	0,0024329	0,3099637
17	EMU	0,0078751	0,0010508	-0,0159142	-0,0302373	na	-0,0093064	0,5140935	0,9358592	0,2928147	0,1157968	na	0,4034541
Ln 20	OIL Pr	-0,0144237	-0,0232368	-0,0315983	-0,0177837	0,0191458	-0,0135794	0,423457	0,2108639	0,1128886	0,460791	0,4657129	0,423457
Ln 19	€/$	-0,0072878	0,0019531	0,021664	0,0609764	0,0676814	0,0289974	0,766561	0,9383283	0,436973	0,0509604	0,0509501	0,436973
16	budget	-0,0006726	-0,0009533	-0,0012549	-0,0004698	0,0016375	-0,0003426	0,6171283	0,5091114	0,4371456	0,8005987	0,4282438	0,5091114
14	Real Long T Intrest	0,008117	0,0046846	0,0007693	0,0005409	0,0007875	0,0029798	0,0010043	0,0646004	0,7805716	0,8604842	0,8176907	0,7805716
Ln gdp	**R²**	**0,930**	**0,927**	**0,916**	**0,900**	**0,885**							
	n	**306**	**289**	**272**	**255**	**238**		306	289	272	255	238	

MODEL 3

	significant at the 99,99% reliability level
	significant at the 99% reliability level
	significant at the 95% reliability level
	significant at the 90% reliability level
	significance below the 90% reliability level

			Coefficients						Significantie.					
	var N°	variabele	0 time lag	1y time lag	2y time lag	3 y time lag	4 y time lag	Average	0 time lag	1y time lag	2y time lag	3 y time lag	4 y time lag	mediaan
	1	(Constant)	-33,745035	-30,796546	-28,518429	-29,411854	-29,940623		9,957E-21	2,287E-20	4,503E-14	1,137E-10	1,215E-08	
	1	Tijd	0,0184328	0,0171428	0,0163583	0,0170377	0,0174412	0,0172826	9,957E-21	1,291E-20	1,71E-20	1,697E-15	2,04E-12	1,71E-20
	7	Household Consumption	-0,0210054	-0,0197872	-0,018822	-0,0184843	-0,0182932	-0,0192784	9,957E-21	1,291E-20	1,71E-20	2,321E-20	6,069E-18	1,71E-20
Ln	2	Initial wealth	-0,1334918	-0,1722039	-0,2127007	-0,2477536	-0,2807656	-0,2093831	1,146E-05	1,338E-07	6,708E-09	3,765E-09	5,433E-09	6,708E-09
	8	Income Tax	-0,0078483	-0,0080899	-0,0089878	-0,0108268	-0,0132138	-0,0097933	9,81E-09	3,342E-08	4,262E-08	1,547E-08	2,714E-09	1,547E-08
	6	Size Government	-0,00659	-0,0076556	-0,0075061	-0,0061039	-0,0038253	-0,0063362	3,972E-08	3,919E-09	1,891E-07	0,0001979	0,038093	1,891E-07
Ln	25	hours worked	0,577223	0,5542222	0,5132105	0,4770019	0,4547913	0,5152898	1,661E-11	6,597E-10	1,906E-07	2,054E-05	0,0003214	1,906E-07
	13	inflation	-0,00105	-0,0053309	-0,0096714	-0,010795	-0,0097257	-0,0073146	0,4729405	0,0005652	3,348E-08	8,469E-08	1,252E-05	1,252E-05
	10	Consumption Tax	0,012604	0,0134542	0,0121369	0,0064931	-0,0021487	0,0085079	1,321E-06	1,95E-06	0,0001261	0,0696097	0,5943304	0,0001261
	30	EU	0,0443749	0,0531489	0,0563359	0,0521594	0,0467386	0,0505515	0,0001663	2,259E-05	4,989E-05	0,0009723	0,0090827	0,0001663
	23	ShadowEconomy	0,0025276	0,0031919	0,0039185	0,0052528	0,0066513	0,0043084	0,004791	0,0008478	0,0002362	2,143E-05	3,253E-06	0,0002362
Ln	5	Pop/km²	0,0283541	0,0285042	0,0263612	0,0236198	0,0212802	0,0256239	1,615E-05	4,413E-05	0,0006271	0,0068828	0,0305948	0,0006271
	21	Education2nd L	-0,001314	-0,0022571	-0,0029131	-0,0024644	-0,0013555	-0,0020608	0,0035809	1,888E-05	3,693E-06	0,0007493	0,0946368	0,0007493
	3	% Popul.>65y	0,0122658	0,0123743	0,0120708	0,0110009	0,0114277	0,0118279	0,0002999	0,0004745	0,0018357	0,0119615	0,0215063	0,0018357
Ln	29	unemployment	-0,0484091	-0,0391357	-0,0228105	-0,008788	0,0068321	-0,0224622	4,486E-08	2,099E-05	0,0233357	0,4419828	0,6012734	0,0233357
	12	Income Difference	0,0131064	0,0079114	0,0058043	0,0069705	0,0102259	0,0088037	0,0018022	0,0756095	0,2411456	0,2107246	0,1007146	0,1007146
Ln	26	latitude	-0,0367702	0,0299999	0,0906537	0,1528429	0,2383746	0,0950202	0,5082948	0,6152435	0,1776437	0,0461021	0,0066346	0,1776437
	27	soc tax	-0,0011143	-0,0008787	-0,0011528	-0,0026199	-0,0043884	-0,0020308	0,1852159	0,3315562	0,2565513	0,0286154	0,0015694	0,1852159
	22	Educ 3rd L	0,0005187	-0,0004007	-0,0010667	-0,0020643	-0,0034062	-0,0012838	0,5086784	0,6374473	0,2652047	0,0618939	0,0080007	0,2652047
	15	Real Short T intrest	0,0043128	-0,0002945	-0,0017168	-0,002982	-0,0029799	-0,0007321	0,0351633	0,8876076	0,4449252	0,2282626	0,2756355	0,2756355
Ln	4	Population	0,000256	-0,0012138	-0,0075537	-0,0172657	-0,0311049	-0,0113764	0,9673798	0,8559271	0,3148817	0,0480677	0,0019714	0,3148817
Ln	18	d echange rate	0,0245524	0,0366675	0,0148021	0,0204977	0,007885	0,0208809	0,1977018	0,0604734	0,4897169	0,3786725	0,7534078	0,3786725
	17	EMU	0,0055758	-0,0030238	-0,0216606	-0,0320456	na	-0,0127885	0,6340533	0,8112309	0,1419639	0,0926584	na	0,3880086
Ln	19	€/$	-0,0174231	-0,0135794	0,0013371	0,0530462	0,076074	0,0198909	0,4074439	0,5374671	0,9570394	0,0699529	0,0200699	0,4074439
	16	budget	-0,0007241	-0,0010856	-0,0014787	-0,0005319	0,0016862	-0,0004268	0,5897586	0,4514936	0,3596366	0,7744553	0,4138962	0,4514936
	14	Real Long T Intrest	0,0074416	0,0036068	-0,0007688	-0,0001944	0,0016299	0,002343	0,0012976	0,1302239	0,7669599	0,9467193	0,6119265	0,6119265
Ln	gdp	**R²**	**0,930**	**0,926**	**0,915**	**0,900**	**0,885**		0,930	0,926	0,915	0,900	0,885	
		n	**306**	**289**	**272**	**255**	**238**		306	289	272	255	238	

Sixteen Conclusions from the Models.

Following conclusions can be drawn from the regression results. We only consider results which proved highly robust; results which combine high significance with consistency in the 15 examined models (3 models with 5 time-lags each: from 0 to 4 years)

1. Average natural growth in Europe can be estimated at 1,72% – 1,98% per year.

2. Europe is over-consuming and under-investing.

Countries with higher household consumption have significant lower prosperity growth. In all three models excessive household consumption proved the strongest single factor related with slow growth. Countries with a 1% GDP lower household consumption have on average 1.9% higher growth rate. A shift in spending from consumption to investment could therefore seriously boost growth, and could be realised by lowering the fiscal burden on savings and increasing the tax burden on consumption. The European initiative to increase taxation on income from savings to 35% by the year 2011 is therefore incompatible with the growth targets set in the Lisbon Strategy. Higher taxation on savings will slow down savings and investment and boost consumption. In Belgium an increase of the savings taxes from 15% to 35% will particularly also affect incomes of those groups of retired with small state pensions and mainly depending on private savings for their survival.

3. Wealthy European nations become self complacent.

Countries with a high level of prosperity at the beginning of the investigated period (1984) had significantly poorer growth. The effect can only partly be explained by decreasing marginal productivity of investment. The effect must rather be explained by decreasing motivation and lessening need to productive contribution when wealth increases.

4. European governments are highly oversized

The negative relation between size of government spending and prosperity growth is very significant in all 3 growth models (sig=9,9E–07). Countries with a 1% GDP lower government spending have a 0,6% higher growth rate. The mechanisms behind the strong growth effect of lower government spending are described by Armey and Barro, and find their ultimate cause in higher marginal productivity of private spending than public spending, as well as through higher incentives to productive contribution when the tax burden falls. A Decrease in Government spending by 1% towards their optimal level can lead to 0,6% extra growth.

5. Europe is overtaxing profits, incomes and wages and under-taxing consumption

We found that countries with higher consumption taxes grow much faster than countries with a higher share of direct taxes. A shift in the tax burden from direct taxes to consumption taxes with 1% could result in a growth of more than 1% of GDP.

The high impact of such a tax shift can be explained by 3 factors:
- higher consumption taxes boost investment at the expense of the household over-consumption
- higher consumption taxes spread the present tax burden on local production to total production (including imported goods)
- lower taxes on profits and income mean better incentives to produce, to take risk, to save and to invest

6. Longer working hours could significantly boost Europe's growth.

Countries with 1% longer working hours have a 0,5% higher growth rate.

7. Europe is over regulating the informal economy

An important part of the national wealth is created within families. Most of this wealth creation such as home-made meals or home care for children or grandparents is unaccounted for in the national accounts. Many of these traditionally home-made goods and services can alternatively be produced and delivered through the formal economy.

Similarly another part of the national wealth creation, previously not accounted for, was produced in local communities. It consists of goods and services exchanged in informally structured networks of citizens interacting by way of mutual benevolence or through informal barter or (partially) paid goods and services. Although these interactions are small scale or one time transactions between friends, family, or within the local community, the value of this informal economy can be estimated at over 15% of total economy. The administrative and organisational burden to deliver many of these goods and services in a formal way often outweighs their actual market value. These informal goods and services are necessary for the good functioning of local communities, and positively affect the formal economy as well as overall European wealth Development.

As European authorities were continuously in search for additional income, governments have in the last decade been looking for ways to formalise many of the informal transactions either through strict legislation or incentive programs (such as the service cheques in Belgium). At least part of official growth figures must be attributed to this shift from the informal to the formal economy. However many other informal interactions have not survived the state interference through regulation, criminalisation, taxation or integration in the formal economy is not known. Excessive interference caused much of the informal economy to slow down or stop altogether, resulting in lower overall wealth creation. Models 2 and 3 found that the positive growth effect of the informal economy was very significant: Countries with a larger informal economy performed significantly better, and also the formal economy profited. In model 1 however the significance of the effect was not confirmed at a scientifically required level.

8. The EU Common market has been highly beneficial to the growth of European countries.

All other factors equal, countries participating in the European Union have on average at least a 3% stronger growth. The benefits of a borderless huge open market with free exchange of goods, capital and persons are highly significant in all 3 regressions. The positive growth effect resulting from a common market can be estimated at least 3%.

9. The early introduction of the Euro and the deflationary effects of the stabilisation pact have been not been positive for Europe's wealth creation.

A common currency implies more then only a change of the colour and numbers on our bills. A common currency also implies a common central bank and a common monetary policy. At the moment of the introduction of the Euro, Ireland grew at a rhythm of 11%, Italy at a rate of 1,7% only. In spite of the fact that under these circumstances an opposite monetary policy for both countries was appropriate, authorities decided to go on with a common monetary policy and continuation of the deflationary stability pact.

In the 3 regression models we found a strong negative impact on growth of this early introduction of the Euro in the regressions with 3 years time-lag. (At the moment of the study data for calculating the delayed growth effects after 4 years were not yet available). Although the 3 models are not fully conclusive on the significance of the negative growth effect, they all point into the direction of a negative impact of the common monetary policy; an impact that is likely to erase all benefits of a liberalised common market. The benefits of improved market transparency and lower transaction costs

certainly did not translate into higher growth. These marginal benefits have been greatly outweighed by the negative growth effects of the deflationary stability pact and the common monetary policy. Adopting such common policies in countries that still have different or opposite national interests results in overall loss of wealth creation and job loss. Of course, deeper causes might be at work as well. With a common monetary policy, countries must seek other ways like more efficiency and more flexibility to remain competitive rather than by manipulating the monetary streams.

10. Europe's workforce is overqualified

There are of course other social objectives than wealth creation justifying a policy of raising education levels. However from a purely economic point of view the regression analysis found that countries with a higher participation at secondary education and a higher percentage of the population of 25 to 34-year-olds that has attended tertiary education, have significantly slower growth. Three causes are likely: The wealth benefits of higher education are smaller than the cost of it, and the employment of overqualified personnel for the jobs on offer. Furthermore in many European countries a situation has developed with a shortage of skilled manual professionals such as plumbers, and an excess of professionals with 3rd level education such as medics and lawyers. Further widening of the gap to the optimal proportion between both types of professionals is likely to deteriorate growth prospects.

11. Small countries perform significantly better

The regressions with time-lags of 3 and 4 year show that small nations (smaller population number) significantly perform better than large countries. Obviously no advantages of scale in our research as one could anticipate could be found.

This conclusion is confirmed in other relevant research. It is widely believed that over-centralised administration in large countries leads to "one-size-fits-all" measures that have negative effects for particular sub regions.

Essential structural differences between EU nations have remained in place. In many countries a majority of the population is unwilling to give up the national identity with its own national social, cultural and economic structures. As a consequence national interests and policy preferences continue to differ in many areas of public policy, and often come in conflict with each other or with the common interest of the European union. Establishing common policies for the whole union under these circumstances cannot but lead to either grey compromises resulting into ineffective policies, or to policies that conflict with the national interests of particular countries of the union, resulting in overall slower growth. A typical example of such a "one size fits all" measure was the early introduction of Euro and common monetary policy, at a time when economies were insufficiently harmonised.

We therefore conclude to decentralised administration and have serious doubts about of the benefits of delegating ever more powers to centralised European Union Authorities.

12. Inflation proves disastrous for growth in all regressions with time-lags of 1,2,3 and 4 years.

13. Northern countries, and more dense populated areas perform better

14. The growth effects of Exchange rate shocks and $/€ currency rate are limited and short lived.

15. Higher growth rates lead to increased employment.

16. Keynesian policies simply don't work

In contrast to what the believers in Keynesian policies continue to pretend, no significant positive growth effect of deficit spending was found in the 15 regression models examined. The same applies to

the growth effects of low-interest policy. The explanation must be found in the fact that lowering interest rates has in many countries such as Belgium -besides a positive effect on consumer spending and potential investment -, also very negative effects.

Low interests causes savers' income to go down, and also the external balance of payments suffers, as countries like Belgium receive more interest from abroad than they pay. Easy-money-policies moreover always increase consuming inflation. Either consumer prices or the value of asset will rise; in many cases both. The price level of the consumer goods has remained under control so far. Europe thanks this to the blessings of globalisation and the massive supply of cheap consumer goods from low-wage countries. However, prices of goods and especially services produced locally have been rising rapidly: repair services, health care and care for the elderly for instance.

But particularly the negative impact on wealth of asset inflation has often been underestimated. Assets such as building lots and houses now take too big a share in family budgets, consuming their wealth. In addition, bonds and shares have now reached price levels where returns are on historical lows. None of these assets are of course found in the consumer index of the ECB. The regression analysis raises questions about the efficiency of the low-interest policies of the European Central Bank. Al least for some countries such policies prove contra- productive to the wealth development. (see the example of Japan)

Comparison With Other Studies

We refer to Appendix 1 for a comparison with the empirical results of similar studies. As to taxation policy most of the studies analysing growth effects of government spending and different tax structures lead to similar empirical findings:

- Government spending above the optimal level causes significant growth slowdown.
- Direct taxes on income are the most distortionate taxes causing most harm to growth.
- A shift from direct taxes to consumption taxes can boost growth prospects

Generally speaking the WorkForAll study found empirical results with higher significance and higher absolute values of the regression coefficients than most prior studies. This is due to:

- The large number of and original selection of relevant independant variables determining growth. A larger number of determing factors evidently allows explaining growth with higher precision than studies considering fewer determining factors only.

- WorkForAll confined the study to the relative homogenous group of European welfare states.

- The WorkForAll study was confined to the time period since 1985, during which public spending was above the optimal level over the whole investigated period. Most prior growth models have been considering vast periods from 1970 to 2003, during which both government under-spending and overspending have been co-existing. As a result, positive and negative growth effects of government spending on both sides of the Armey-optimum have been compensating in the linear regressions. This has resulted in grossly underestimated coefficients and significance of the growth effect of government spending in prior growth models.

Simulations at Different Sizes of Governments in the Case of Belgium

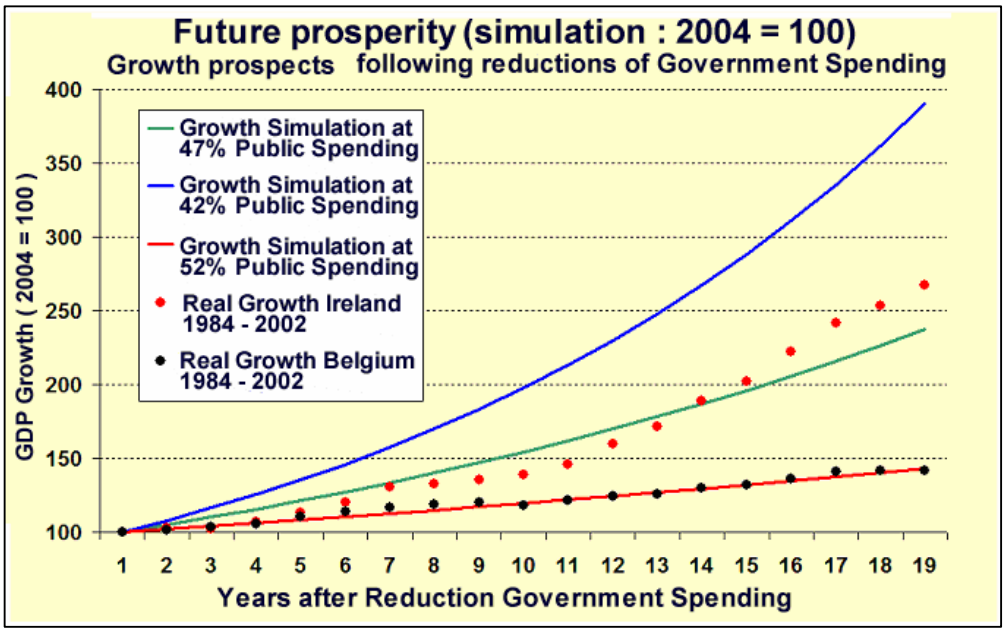
On basis of the elasticity's found in the regression we can conclude that prosperity growth is correlated negatively by the size of the government spending in the examined countries.

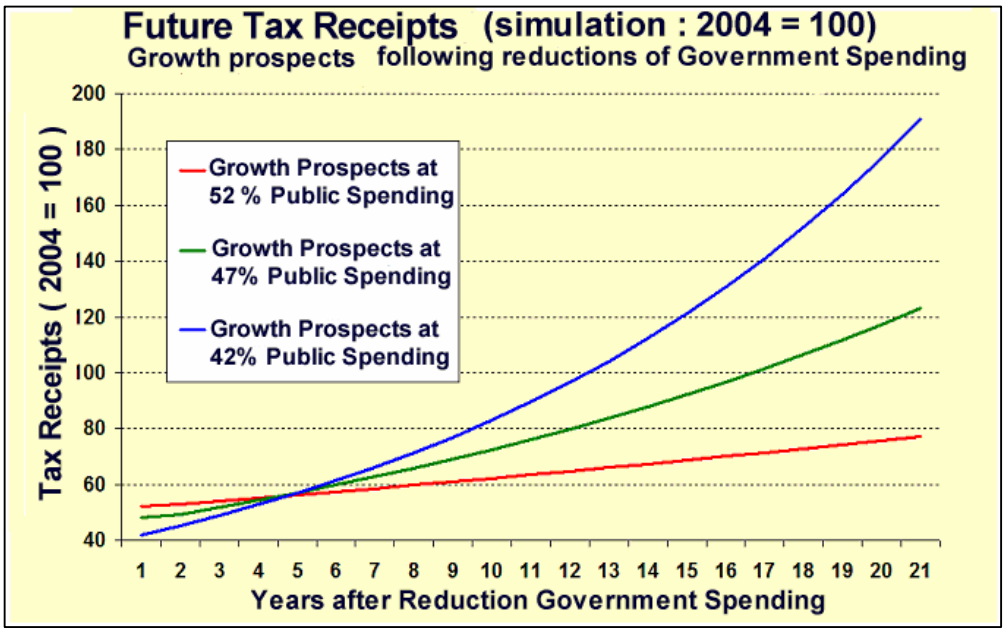
On basis these elasticity's simulations can be established of the prosperity growth as a consequence of decreasing government Spending. Simulations were made at a decrease in government spending of respectively 5 and 10% of the GNP. A decrease in government spending with 10% results in prosperity growth after 20 year with 321% contrary to the prosperity growth of 45% only when policy remains unaltered. More remarkably one notes that also the tax receipts in absolute terms drastically increase although their relative share decreased by 10%. This is of course related to the enlarging taxable base in a booming economy. Unaltered taxation policies on the contrary leads to slower prosperity growth prospects due to both the high tax burden demotivating active contribution to the economic cycle as well as the lack of resources in the private for maximising its wealth creating potential.

Elasticity GNP / Government Spending = - 0,568
5% Decrease in public Spending causing 2,93% supplementary growth rate
10 % Decrease in public Spending causing 5,86% supplementary growth rate

Effects of decrease in Public Spending on GNP en Tax receipts						
Year	Unchanged Policy (52% GNP)		Public Spending 47% GNP		Public Spending 42% GNP	
	GNP 2% Growth	Tax Receipts	GNP 4,93% Growth	Tax Receipts 47,00%	GNP 7,86% Growth	Tax Receipts 42,00%
2004	100,0	52,0	100,0	48,0	100,0	42,0
2005	102,0	53,0	104,9	49,3	107,9	45,3
2006	104,0	54,1	110,1	51,7	116,3	48,9
2007	106,1	55,2	115,5	54,3	125,5	52,7
2008	108,2	56,3	121,2	57,0	135,3	56,8
2009	110,4	57,4	127,2	59,8	146,0	61,3
2010	112,6	58,6	133,5	62,7	157,5	66,1
2011	114,9	59,7	140,1	65,8	169,8	71,3
2012	117,2	60,9	147,0	69,1	183,2	76,9
2013	119,5	62,1	154,2	72,5	197,6	83,0
2014	121,9	63,4	161,8	76,1	213,1	89,5
2015	124,3	64,7	169,8	79,8	229,9	96,6
2016	126,8	65,9	178,2	83,7	248,0	104,1
2017	129,4	67,3	186,9	87,9	267,4	112,3
2018	131,9	68,6	196,2	92,2	288,5	121,2
2019	134,6	70,0	205,8	96,7	311,1	130,7
2020	137,3	71,4	216,0	101,5	335,6	141,0
2021	140,0	72,8	226,6	106,5	362,0	152,0
2022	142,8	74,3	237,8	111,8	390,4	164,0
2023	145,7	75,8	249,5	117,3	421,1	176,9

Simulations At Different Sizes Of Governments In Case Of Belgium





Thanks to the increased growth rate Tax receipts already after 4 year exceed tax receipts received when policies are unchanged. After 20 year tax receipts even amount 3 times the receipts in case of unchanged tax policy. This means 3 times as much resources for financing public environmental, social or cultural initiatives, or for financing the increasing pension burden.

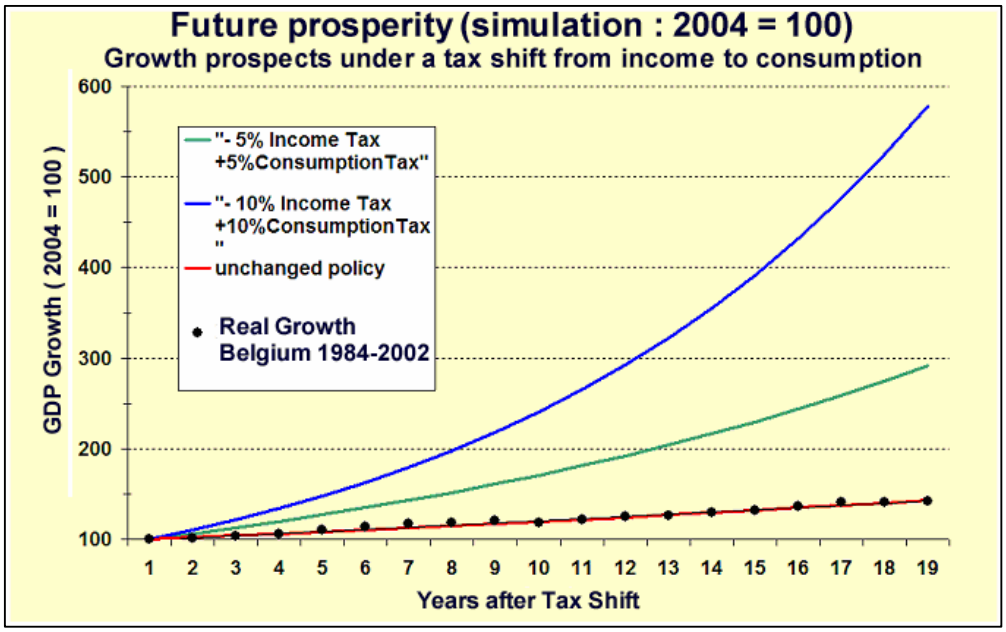
Simulations in Case of a Tax Shift from Direct Taxes to Consumption Taxes in The Case of Belgium.

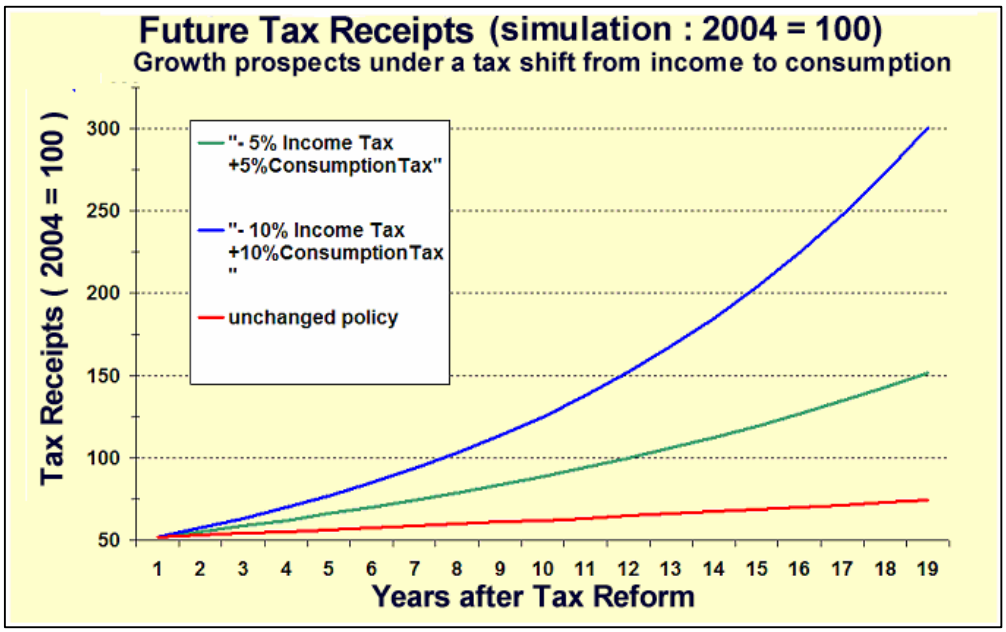
The regression also shows a strong negative relationship between growth and income taxes. This is in line with Armey's arguments that income taxes have a strong demotivating effect on entrepreneurship, and working ethics. An abasement of income taxes by 1% of GNP could yield a supplementary growth effect as high as 0.76%. Countries with a relatively higher consumption tax on the other hand have higher growth. Elasticity is at 0.889.

This last effect must be attributed to an increase of the savings and investment rate when consumption taxes are higher resulting in higher growth rate. The shift of 1% income taxes to consumption taxes could consequently boost growth by as much as 1.649%. With a large safety margin amounting to half of this theoretical growth potential the growth simulation in case of a shift of direct taxes to indirect taxes looks as follows:

Effects on GNP and Tax receipts of a Tax Shift						
year	Unchanged Policy		- 5% Income Taxes +5%Consumption Taxes		-10 % Income Taxes +10% Consumption Taxes	
	GNP	Receipts	GNP	Tax receipts	GNP	Tax Receipts
	2% growth	52,00%	6,12% growth	52,00%	10,24%Growth	52,00%
2004	100,0	52,0	100,0	52,0	100,0	52,0
2005	102,0	53,0	106,1	55,2	110,2	57,3
2006	104,0	54,1	112,6	58,6	121,5	63,2
2007	106,1	55,2	119,5	62,1	134,0	69,7
2008	108,2	56,3	126,8	66,0	147,7	76,8
2009	110,4	57,4	134,6	70,0	162,9	84,7
2010	112,6	58,6	142,8	74,3	179,5	93,4
2011	114,9	59,7	151,6	78,8	197,9	102,9
2012	117,2	60,9	160,9	83,6	218,2	113,5
2013	119,5	62,1	170,7	88,8	240,6	125,1
2014	121,9	63,4	181,2	94,2	265,2	137,9
2015	124,3	64,7	192,3	100,0	292,4	152,0
2016	126,8	65,9	204,0	106,1	322,3	167,6
2017	129,4	67,3	216,5	112,6	355,4	184,8
2018	131,9	68,6	229,8	119,5	391,8	203,7
2019	134,6	70,0	243,8	126,8	431,9	224,6
2020	137,3	71,4	258,8	134,6	476,1	247,6
2021	140,0	72,8	274,6	142,8	524,9	273,0
2022	142,8	74,3	291,4	151,5	578,7	300,9
2023	145,7	75,8	309,3	160,8	638,0	331,8
2024	148,6	77,3	328,2	170,7	703,4	365,7

Simulations in Case of a Tax Shift from Direct Taxes to Consumption Taxes in the Case of Belgium.



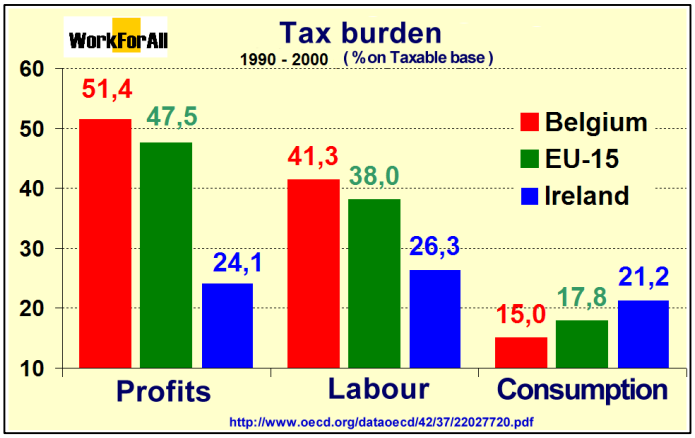


PART III. A Case Study: Ireland versus Belgium

In part II we found strong evidence that the size of public spending and fiscal policy are prime factors determining growth prospects for job creation. In this chapter we analyse the effective growth and employment effects in two economically comparable countries whose tax policies are quite opposite: Ireland and Belgium.

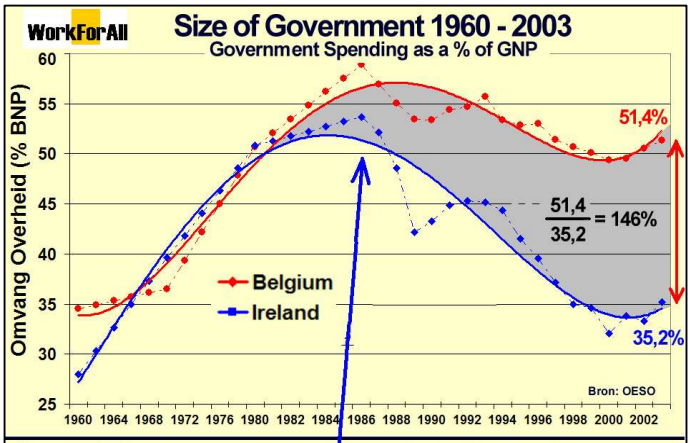
Ireland's is characterised by relatively low public spending at 35% of GNP, whereas Belgium has high public spending at 51% of GNP (2003). Ireland's tax structure is also almost flat, whereas Belgium's tax revenues are predominantly based on direct taxes. Belgium has also low taxes on consumption.

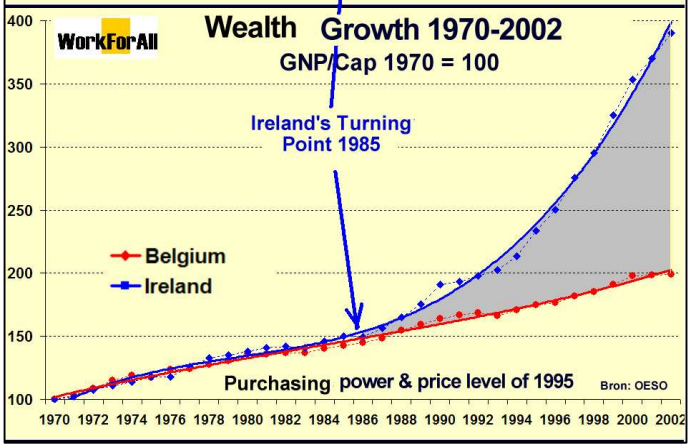
We analyse the real effects of both taxation policies on growth, tax revenues, state budget, public debt, job creation and social expenditure.



The effects of tax cuts on Growth

In 1985, Ireland's economical situation was dramatic, and even worse than Belgium's: excessive budgets deficits, weak growth performances, and a wealth that amounted to only 65% of the Belgian level. Irish unemployment reached 17 % compared with 10 % for Belgium. Until 1985 both countries followed similar Keynesian policies and government spending derailed. In 1983 Belgian public spending exceeded the psychological level of 50% of the GDP...





This excessive public spending (mostly unproductive) was accompanied by a continuous increase of the tax burden and of public debt The negative spiral had begun On the graphics we can see that until 1980 Irish public spending evolved approximately in the same way as in Belgium and dismal growth performances was the fate for both countries.

Ireland's policy change in 1985

In 1985 Ireland however changed policies dramatically. They drastically lowered the tax burden. All superfluous government spending was dropped, and in three years time public spending was reduced with no less then 20%. Ireland's economy reacted immediately with a sustained explosive wealth growth averaging 5.6% in the period 1985 until 2002. This is roughly the triple of the Belgian growth rate.

Belgium chose for a very different policy. Belgium barely lowered the tax burden at all, but tried to boost the economy with all sorts of micro-measures. Even under favourable cyclical conditions, public spending remained above the 50% GDP level. Under these policies, growth stagnated around 1,9%. In 2003 the authorities still took 51.4% of the Belgian wealth creation. In the meantime Irish Authorities had pushed back public spending to 35.2% of GDP. Today Belgian public spending is 46% larger than the Irish one, and the growth rate differential is accordingly.

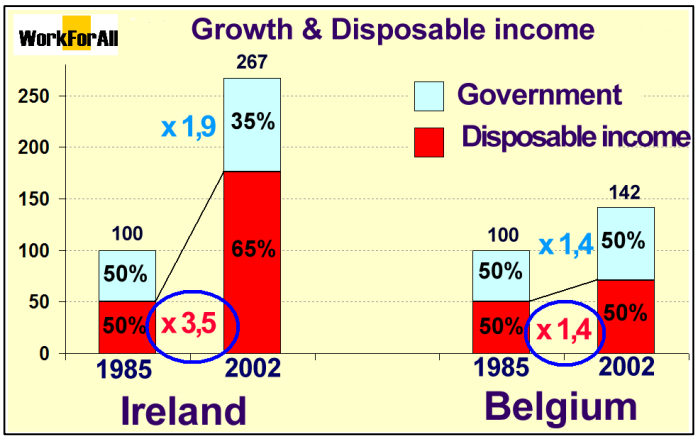
The effects of Growth on Wealth and Policy margin

Although the Irish prosperity in 1970 was barely half Belgium's, today it is significantly larger. As consequence of the high growth rate, Irish authorities today have large margins for all kinds of social, cultural and environmental initiatives as in absolute terms Irish government disposes of more resources than the Belgians do.

However, the Irish wealth is felt most in the purses of its citizens. The GDP/head increased with 167% in a 17-year period while the tax burden decreased with one-third. Nevertheless the result was a multiplication of the disposable income with a factor no less than 3.5.

Ireland's wealth explosion is visible in all aspects of daily life. An unequalled optimism prevails. Dublin is experiencing a construction boom and new business sprout daily. In the countryside new houses are seen everywhere, the newest car models, modern factories and offices.

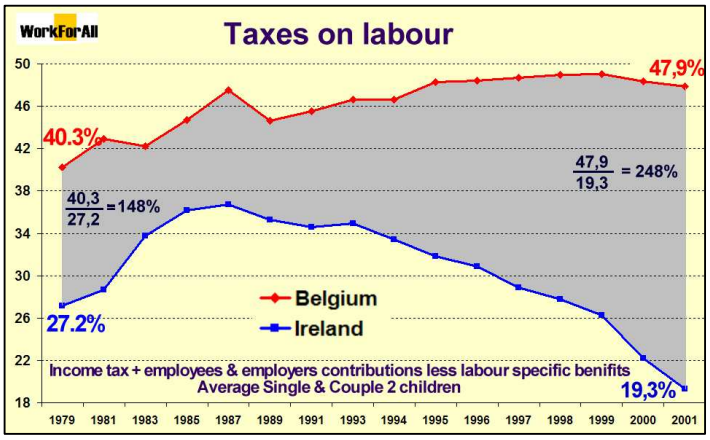
The wealth is also visible in the absence of criminality, in the high birth rate and in quality of life index published by Economist magazine. Ireland is now ranked as the most pleasant country in the world to live in.



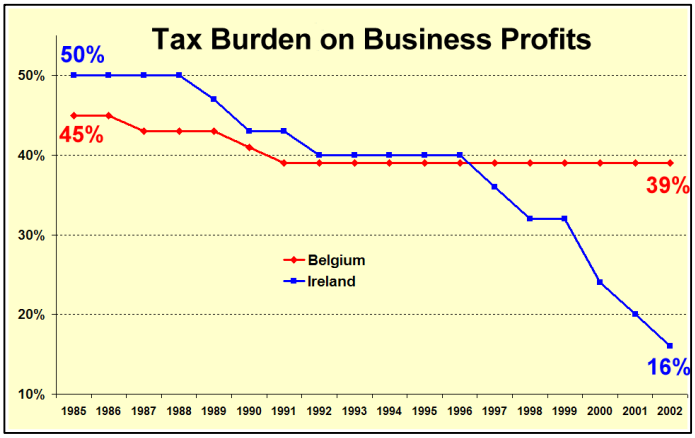
The transition from Keynesian policies to production-stimulating policy

Fundamentally, a participation and production-stimulating policy consists of a substantial reduction of the total tax burden on labour and in flattening the tax structure by decreasing direct taxes. Such a tax policy motivates people back to work: it stimulates entrepreneurship, risk taking, to perform some overtime or to delay retirement. Of course, this does not work with a vague promise for a minor tax cut sometimes in the far future as is customary in many countries. Cuts must be felt immediately and they must be substantial.

Between 1985 and 2001 Ireland lowered the tax burden on wages from 37% in 1985 to 19.3% in 2001. They roughly halved the burden. In Belgium the burden on labour even slightly continued to rise from 46% in 1985 to 47.9% in 2001. Today the Belgian burden on wages is 2.5 times as high as the Irish. Not surprisingly Belgium's workers have lost their eagerness to do overtime, and businesses are delocating en masse.



However, it was the cut of corporate tax rates that brought along the greatest improvement of the entrepreneurial climate. When Ireland was at the bottom of its crisis in 1985 the corporate tax amounted to no less than 50%. In 2002, Ireland had reduced that tariff to 16%.
Belgian rate cuts on the contrary were marginal, and clearly insufficient to raise any effect at all. The recent decrease of tax rates in Belgium had to be "budgetary neutral" and was compensated by the abolishment of deductions. In fact, the cut was meant at dressing up internationally published rate tariffs, and had in fact no effect at all.



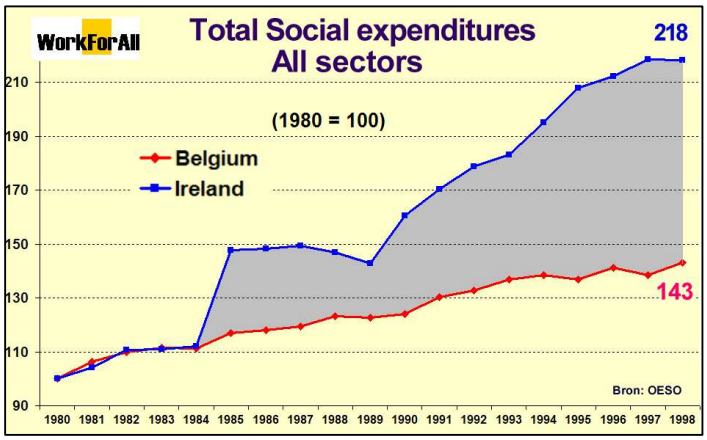
The Effects of Growth on public finance.

Policy maker's main fear for tax cuts result from the misunderstanding that rate cuts lead to lower tax receipts. Not so. In heavily overtaxed countries like Europe the Laffer-effects are strong. Every rate cut in fact broadens the tax base because tax evasion and fraud becomes less profitable. A perfect example of the benefits of the Laffer-effect was experienced by the Flemish government when they lowered inheritance and gift taxes. Since these tax cuts the corresponding tax receipts have dramatically risen.

Moreover lowering inheritance taxes, does not motivate to die early. If governments cut rates on incomes however, they may expect the supplementary benefits of the so-called Armey-effects. Low rates on income motivate people back to work, to perform some overtime, to start an own business, or to delay retirement. This broadens the tax base still further. Moreover, the financial resources flowing back to the private sector are invested in a more productive way than in the public sector. Ireland has demonstrated the effects of the combined Laffer-Armey effects on direct taxes all too well. Its tax receipts have continued to increase as the tax burden went down.

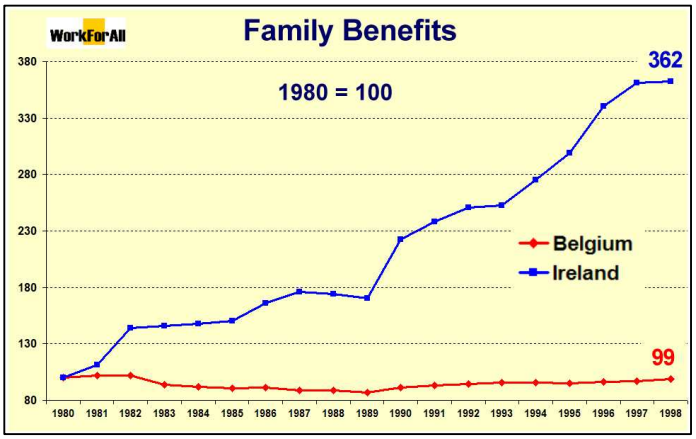
The Effects of Growth on social spending

Policy makers also fear falling social spending and ultimately the destruction of the welfare state as a consequence of lowering tax rates. Ireland has again proven that the contrary happens when the tax burden is reduced. Again this fear is based on the misunderstanding is that tax receipts fall when tax-burden falls. For direct taxes the combined Laffer and Armey effects are extremely strong, and Ireland has proven this. The tax receipts continued to rise under falling tax rates.



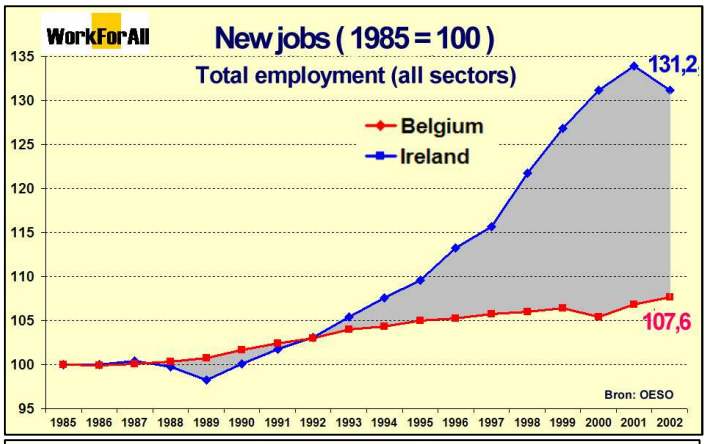
Even at constant social spending rates the dynamics of growth allow for a rise in public welfare expenditures. As a percentage of GDP, Irish social spending roughly remained constant, just as was the case in Belgium. But the stronger economic growth in Ireland has lead to an increase of social spending in real terms with 118% between 1980 and 1998. Belgian social expenditures barely grew with 43%. Ireland has demonstrated that a production-stimulating policy is indeed more social than a Keynesian demand-side policy of boosting consumption.

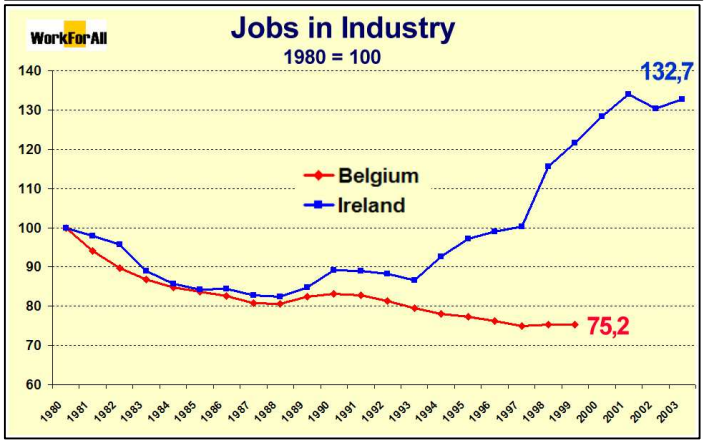
In all large sectors of social security, the real benefits have increased more in Ireland than in Belgium, except for the unemployment benefits. Of course, this is due to the drop of the Irish unemployment to one third of its 1985 level. Benefits per unemployed are now higher in Ireland than in Belgium.



Irish are champions in family benefits, in which the child allowances are the main single item. In 18 years, the Irish family benefits rose by no less than 262%. Belgian family allowances even slightly went down. Belgians continued to focus on savings on welfare: their shrinkage scenario has opened the way to gradual destruction of their social security system.

The effects of Growth on Job creation





All sectors combined, Ireland created 31% new jobs between 1985 and 2002. In Belgium this was barely 7,6%. The highest increase was in services: +106% compared with +15.8% in Belgium. However, most remarkably even in industry, Ireland achieved to create 32% new jobs between 1980 and 2003. In Belgium the industrial employment in 1999 caved in to 75% of the 1980 level. Since 1999, However In agriculture the same evolution took place in both countries: a gradual decrease of the employment. However, agricultural employment today has a lower impact.

It is widely believed that European de-industrialization is an unavoidable phenomenon. Ireland has proven that it is not, and that even a European country can still increase its industrial employment

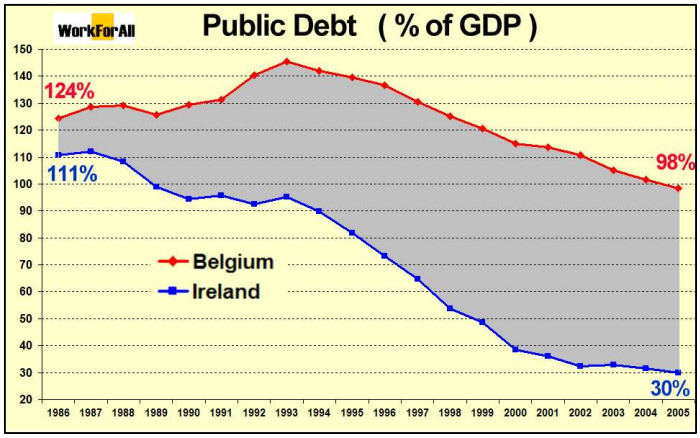
The effects of Growth on Public Debt.

Many European countries still face a gigantic state debt. This debt in many countries is the logical consequence of years of fruitless “Keynesian deficit spending”. In Belgium public debt has culminated under the disastrous administration of socialist minister of budget MATHOT, who went so far as to state publicly that deficits had come by themselves, and would go away by themselves. Of course, building up such a debt was economic insanity, and a moral injustice to the coming generations. One must get rid of these state debts. The only question is how?

One can of course try to reimburse it as fast as possible. In Belgium, even with the huge savings rate of 14% this would take 8.85 years when they spend all savings on debt reduction. But then nothing

remains to invest. Not a single machine, not a single house. They could also spread it over 17.7 years, but also then they would need to halve investments, with disastrous consequences for the competitiveness and the prosperity. Paying back public debt in this manner is much too slow, and will always be done at the expense of investment.

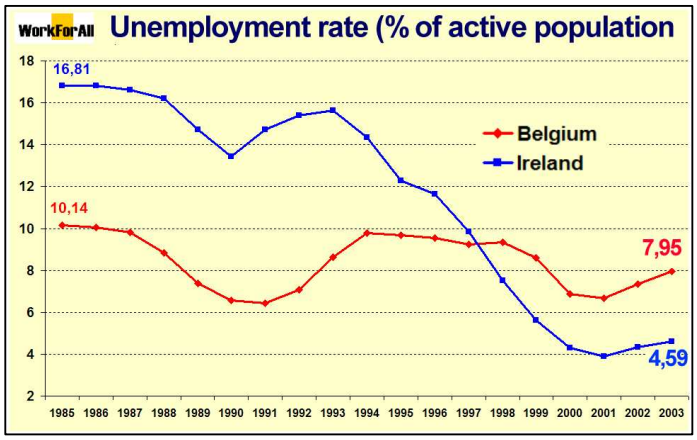
An alternative manner to reduce the proportion Public Debt/GDP is to focus on the denominator of this fracture, and not on the numerator. . In other words, we must focus on growth.. This is exactly what the Irish have done.



In 1986, Irish public debt amounted to 111% of GDP, almost just as bad as in Belgium with 124%. The Irish tax cuts however boosted growth to an average 5.6% per year, between 1985 and 2002. Belgium focused on the nominator of the fracture: . This policy had a deflationary effect and the growth stagnated at the low level of 1,9%.

After 17 year an exponential growth rate differential of over 3% works out to a gigantic difference: Ireland raised its GDP by a factor 2.67. Belgium with a factor 1.42. In other words Ireland increased the denominator of the fracture public debt / GDP with that factor 2.67, Belgium with that factor 1.42. This way Irish debt will be reduced to 30% GDP in 2005. With much effort and many new taxes, the Belgian government debt will still be at 98% of GDP

Unemployment and a supply-side economic policy.



In many countries a very tough misunderstanding persists that available work is a limited static quantity that one should have to share. Nothing is less true. Tax cuts are the motor to creativity, to new initiatives and to job creation in the productive sector. This is clearly shown in the Irish unemployment statistics. In 1985, Irish unemployment was much worse than in Belgium: 17% unemployed as compared to 10%. In 2003 Ireland had reduced the figure to 4,6%. In reality, this means that Irish employers are permanently in search for workers, staff and employees, and not the other way around as is the case in Belgium. Although, it must be said as well that the motivation to work is so low that for some professions employers have a hard time finding the right people en often have to resort to attract foreign workers.

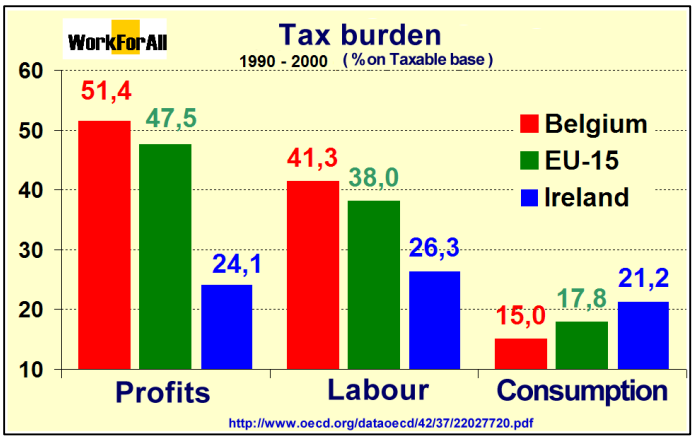
The fear that low rates on profits and low social contributions only attract enterprises from other countries is based on the very same misunderstanding. This reasoning assumes that the number of enterprises and their size are invariable quantities that should be shared among nations. This reasoning assumes that the enthusiasm to work or start one's own business is insensitive to the tax burden. One should know better. When a larger share of the fruit of their labour is allocated to people, their readiness to productive contribution immediately increases. Low tax burden motivates to work, to perform overtime work, to take risk, to invest and to postpone retirement.

The shift from direct taxes to indirect consumption tax

One of the main conclusions from the regression-analysis in chapter II was that countries with higher consumption taxes grow much faster than countries with a higher share of direct taxes. A shift in taxation policy could effectively spur growth.

Public spending grew explosively since the sixties. In most European countries direct taxes have taken the entire burden of this government growth. Family income taxes in Belgium doubled since 1965; taxes on consumption barely changed at all.

When the Belgian social security model was conceived, the proportion between direct and indirect tax was balanced. However, in the course of the time, the structure of tax receipts became distorted.



Economic effects of a tax shifts.

- High direct taxes de-motivate productive contribution to the system

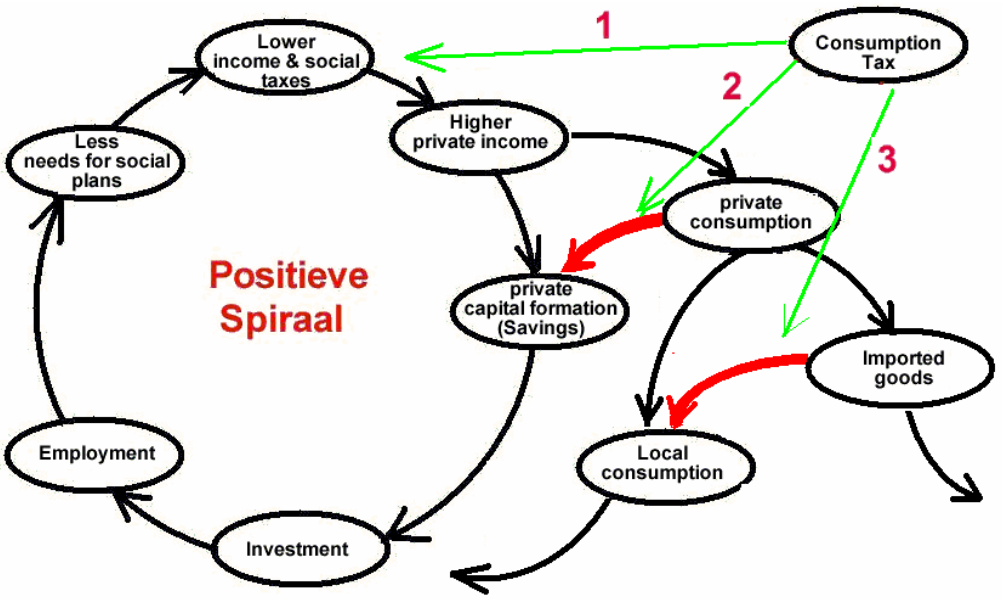
- Raising taxes on consumption to lower direct taxes. Lowering social contributions improve wage competivity and stimulate growth. On an individual level higher net incomes are motivating, and decrease pressures in the wage negotiations, improving competitions further.

- A low ratio consumption taxes/direct taxes boost consumption to the disadvantage of investment. Higher consumption taxes provide incentives to save and invest. Hereby a larger part of the (raised) private income is directed in the productive circuit. The accelerator effect of the increased income becomes a multiplicator effect through increased investments.

- Consumption taxes spread the burden of the social security system over foreign as well as domestic production. Products produced abroad are bearing an equal share in the burden. Under the present tax structure the tax burden of income taxes and social security contributions rests on local production only. For local producers these taxes on production are cost increasing, resulting in higher product prices. Foreign products have an unfair advantage over locally produced goods. Consumption taxes however are taxing products, regardless where a product is made. The actual competitive advantage of foreign production can be lifted. As a consequence domestic products become competitive and can win market share, strengthening the domestic circuit, resulting in positive growth effects. These effects also concerns competition within Europe.

- The present European tax structure with high tax burdens on domestic production is clearly distortionate as to comparative costs of production in different nations and therefore leads to sub-optimal worldwide division of labour and sub-optimal location of industry. Only an equal treatment of domestic and foreign production can lead to an optimal worldwide location and optimal wealth creation.

A shift of the tax burden can therefore give an additional boost to both national and wold wide growth. However the main objective must remain a substantial lowering of the total tax burden. The IMF comes to the same conclusions in their study of July 2004



Taxes on production are distortionate and cause sub-optimal location of industry resulting in sub-optimal worldwide wealth creation

The basic idea behind globalisation is that goods should be produced in countries with the best conditions for producing them. Countries should specialise in the production of goods and services for which they have the greatest comparative cost advantage, or in which they have the least comparative disadvantages. Such specialisation will lead to worldwide more effective production and optimal overall wealth creation profiting for all participating nations.

An often heard criticism against a shift from direct taxes to consumption taxes is that raising taxes on imported goods is a form of protectionism; a trade barrier slowing down globalization, harming the wealth effects of globalization. This criticism makes the wrong assumption to consider domestic taxes on production a integrating part of the real comparative costs structure.

According to Ricardian theory of trade, each particular industry should be located in countries which have the lowest comparative costs considering their state of technological development and infrastructure as well as labour costs. However taxes on production increase local costs and distort entrepreneurs' location decisions causing a sub-optimal global wealth creation. Clearly a difference should be struck between "real" comparative advantages and fiscal comparative advantages.

The present comparative disadvantages in many sectors of European Industry do in fact not result from "real" technical causes such as faulty infrastructure, organization, unfavourable climate, inferior technology, poor creativity or low productivity of our employees, but merely from the excessive taxation of the domestic production. In Belgium for instance wages are taxed at up to 200% (gross versus disposable income). These direct taxes more than double labour costs and cut Belgian wage productivity in half. These excessive production taxes even semi-labour intensive sectors, in which Belgium -and similarly most European countries- have a technical (fiscally neutral) comparative advantage. Even then companies delocalize to countries with much inferior "real" productivity.

Taxes on production have therefore the same effect as export duties: they promote imports and delocalisation and hinder exports and local investment. These "negative" import barriers distort real comparative advantages in the same manner as their "positive" counterparts do, however in the

opposite direction. Direct taxes therefore prevent the optimal worldwide location of industries and optimal global international division of labour just as well as protective import duties do.

Europe's heavy tax burden on production has the net effect that Europe's exceptional productivity is sub-optimally utilized. The consequence is a sub-optimal worldwide location of industry, sub-optimal use of capital, infrastructure, resulting ultimately in world-wide wealth creation at a lower level than the actual state of technical development allows for. The negative wealth effect is particularly heavy in countries with rigid labour markets such as Belgium, where labour is difficultly transferred from delocalized industries to newly developed activities.

An optimal location of industry and optimal worldwide wealth creation can only be achieved when tax systems are neutral as to their treatment of domestic and foreign production. Consumption taxes are neutral, direct taxes are not. In case direct taxes on production are replaced by consumption taxes the fiscal burden on both domestic and foreign production is equal, so that entrepreneur's location decisions are based on the real technical comparative costs only. This will finally result in goods being produced in countries where the real comparative costs are the lowest.

A shift of tax burden from direct taxes to consumption does not hinder globalisation. On the contrary: it creates the conditions under which the globalised economy can reach the optimal wealth equilibrium. Such a shift lifts the distrotionate tax system, which provides unjust competitive advantages to nations with poorly developed social security systems. The present distortionate tax system causes permanent pressure in developed nations for gradual cuts in their social protection. Contrarily a shift from direct taxes to consumption taxes provides besides the conditions for optimal global wealth creation also the economic incentives for worldwide social development.

Social aspects of Consumption taxes

In the knowledge that a shift of the tax burden can bring about substantial national and global growth acceleration, the stubborn resistance of our policy makers against consumption taxes is inconceivable. Their resistance costs the world and Europe in particular wealth and jobs. Labour organisations call consumption taxes unsocial. Not so, when the alternative of job destroying direct taxes is concerned.

Big consumers pay most

The often heard criticism is that consumption taxes would be unsocial is simply not true. The big consumers simply bear the heaviest burdens. Even under flat consumption taxes, Porsche buyers pay 5 times more VAT than Fiat Panda drivers. Champagne drinkers pay 5 times more VAT than beer drinkers. Drivers in luxury limousines pay more excise duties than petrol efficient vehicles. Heavy drinkers pay more than sober citizens. Consumption taxes are indeed social taxes by nature.

Moreover progressive rates such as usual in most countries strengthen progressivity. High rates for luxury products such as luxury cars, gadgets, cruises and luxury estates, luxury products such as caviar, lobster, for instance. Low rates for basic consumption goods such as basic food products, health service sport, medical and care for the elderly. A more social tax is scarcely conceivable, certainly in comparison with the present alternative of job destroying direct taxes. Also environment-friendly tax structure is conceivable.

Unsocial complexity of income taxes

Income taxes have now reached such a degree of complexity that normal citizens cannot longer understand all the rules and exceptions. Under such a complex system the possibilities for the rich to avoid tax (legally or otherwise) are far greater than for the poor. The opportunities to do so arise from the very complexity of the codes. So it is unsurprising to discover, as experience suggests, that the rich usually pay about as much tax under a flat-tax regime as they do under an orthodox code.

Direct taxes cause high costs of compliance, administration and enforcement
Simplicity is of course a boon in its own right. The costs merely of administering a conventionally clotted tax system are outrageous. Estimates for both the United States and Europe, put the costs of compliance, administration and enforcement in the case of direct taxes at around 15% of revenue collected.

What then are the advantages of being very simple-minded when it comes to tax? Though it is impossible to be precise, that direct burden is almost certainly as nothing compared with the broader economic costs caused by the government's interfering so pervasively in the allocation of resources.

Sound Economic Policy and Politics;
Why is this not applied everywhere? For a fundamental policy change, a political majority is needed, and our politicians think short-term and often still in terms of ideology and conflict of classes. They seldom think of the common interest, and even less in the interest of the next generation. They simply do not know the figures and are not conscious of the impact of wrong policy choices.

If Belgium had chosen in 1985 the same policies that Ireland chose, its population would have been twice as wealthy today. The government debt would now have been reduced to 35% of the GDP, and the employers would be competing for employees. Every day delay costs us loss in employment and prosperity. To convince a political majority of such facts needs a political leader with view and especially acting power. Belgium has simply lost 20 years of progress.

The role of the media and the role of education.
The responsibility of education and of the media is overwhelming. Even today in our universities the Keynes-doctrine is still taught as a brilliant manner to boost the economy. One forgets that the theory is seventy years old, and that the ideology stems from an era of plan-economical thinking. Just as medical knowledge has evolved over the last century, economic insights have. Our doctors do no longer apply cures and equipment of the thirties.

The present generation of politicians and journalists were raised with the Keynesian doctrine, and do not realize that a new generation of economists has arisen since the thirties. In modern research the Keynes doctrine has been countered with overwhelming empirical evidence. Politicians and journalists do not realize that since they graduated the economy has come to a new understanding. Many have possibly never heard of Hayek, lifer, Armey, Friedman or the Austrian school. It may last another generation before this becomes evident to the decision levels. Hopefully Europe won't live on an industrial graveyard under a dictatorship by then.

Europe's challenge:
Competitiveness in a Globalizing Market Place
Facing a Demographic Time Bomb.

Present Tax Policies not adapted For Globalisation

Europe's gradual decline in competitiveness and growth already started in the 80's and coincided with the gradual growth of Europe's public sector to 50% of GDP and above, reaching a level where public spending was one third higher than OCDE average and its major competitors such as USA and Japan. Before globalization our main competitors had comparable social and cost structures. However the rapidly globalizing marketplace for goods and services is now exposing Europe's economy to a worldwide competition where competitors operate with little or no social burden. As globalisation is both unavoidable and rapid, restoring competitiveness a prioritary must. A second challenge is Europe's aging and declining population. The increasing dependency ratio make the present funding of the social security system unsustainable, and changes are urgent to avoid a looming social crisis and oncoming disaster.

The globalizing market place and the demographic time bomb put Europe is before two simultaneous challenges: restoring competitiveness and restoring financial balances of its social security system. For restoring competivity the options are both limited and evident: either Europe will have to halve its wage cost, or double its productivity, or a combination of both. Either policy choices will be made orderly in the very near future or market forces will force them on us rather randomly.

Cutting down cost

Both wage cuts and cuts in essential social protection are facing social resistance and have deflationary effects, as one can actually witness in Germany and Holland. However countering many abuses in the social security system as well as the "unemployment-trap" which actually provides incentives to leave the productive sector, must be countered. The issue is that cutting down social protection often faces social resistance and similarly to wage reduction it has deflationary effects. Alternatives are:

- To improve the productivity of the social security system, reducing its overhead and operational costs
- To seek alternative financing sources other than local production.

Increasing productivity

Europe being at the top of technical productivity in the productive sector, further gains can only be marginal. Major productivity gains can however be achieved through:

- Increasing the productivity of the public sector. The ECB study on public sector productivity has showed the weak points for each of the European countries. For Belgium it is its administration.
- A shift from the unproductive (public) sector to the productive (private) sector.
- Increasing the wage productivity through a shift of the social burden from direct taxation to indirect consumption taxes.
- Increasing the labour market participation

Total approach: providing incentives for participation and entrepreneurship:

Obviously deflationary shrinkage scenarios by way of serious cuts in Europe's social security system have deflationary effects, risk heading Europe towards an even more serious collapse and cannot provide the necessary doubling of Europe's wage productivity for making Europe competitive in the world markets.

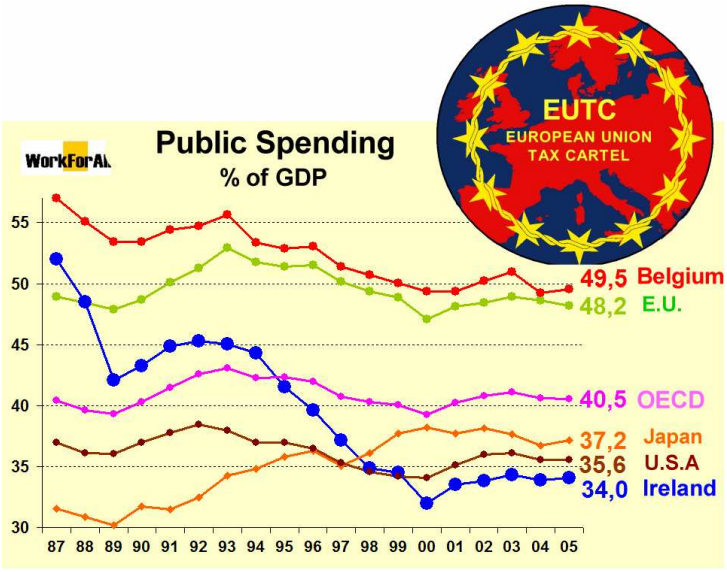
Ireland has shown that growth stimulating by fundamental tax reform can restore both entrepreneurship and labour market participation. Measures like postponing the retirement age without measures to improve real job creation only shift the problem from pension funds to unemployment funds. The fundamental cause of European disease of poor participation rates and low levels of entrepreneurship should be tackled: demotivation through excessive taxation.

Increasing the labour market participation through legislative measures such as up-shifting the retirement age cannot provide long term solutions. Such measures turn back the social achievements, and basically cure the symptoms only. They do not provide the conditions for creating productive jobs to absorb the higher participation and the raised labour offer.

Increasing job creation and increasing the numbers of new starters can only come from improving the entrepreneurial climate, lowering taxes and increasing the risk premium against the relative generosity of the easy and risk free alternatives. If one wants to cure Belgian's disease of low participation one should tackle the cause which is nothing less than total demotivation due to the enormous tax burden.

Benefits of Tax Competition

Obviously Europe is a high tax area as compared to other regions. Just as competition between businesses leads to creativity and optimal use of scarce resources, tax competition between nations leads to optimizing the administration. Each form of tax cartel (to easily "tax harmonization") between nations is as harmful to employment and wealth creation as monopolies and cartel agreements between businesses. It may be feared that the proposed European constitution will allow imposing by carefully manipulated majority rule minimal tax rates on the member states. Countries wanting to adopt similar growth policies as Ireland might find themselves very limited in their national autonomy to execute economic policies that are different and more sensical. Such a European constitution and system of minimal tax rates risks perpetuating Europe's stagnant growth which has already lasted for decades now.



FINAL CONCLUSIONS

In this empirical research project we described the huge differences in economic and social performances between European Countries. These growth differentials must be attributed to differences in public macro-economic management of the economy rather than micro-economic differences between businesses or behavioural differences of the citizens.

The multiple regression analysis in which the recent Barro-Armey findings were implemented, analysed 25 plausible causes of the growth differentials. 93% of the growth differentials were explained for by the examined factors. The Three growth models have uncovered the main imbalances contributing to poor growth in most of European countries.

As to size of government following empirical evidence was found

- European governments are highly oversized

Although "Size of Government" is a mayor topic in Anglo-Saxon research, we found this crucial policy variable seldom mentioned in European state sponsored academic literature. Where mentioned the impact is highly understated. In our analysis the evidence of a strong negative relationship between government spending and growth prospects was consistently confirmed with high significance in all 15 models. European authorities, particularly Belgium, take too large a share of the wealth creation. As a result the private sector lacks the resources to fully realize its potential wealth creation. Moreover excessive taxation needed for financing public expenditure has been demotivating over the last 20 years productive participation in the economy.

Simulations showed that slimming down public spending by 5% GDP could boost growth by as much as 3%, and that this supplementary growth could lead to an increase of tax receipts in absolute figures, providing the public finance for the wide range of Europe's social, ecological, and cultural public initiatives, as well as for the cost of ageing.

As to tax structure following empirical evidence was found

- Europe is over-consuming and under-investing.
- Europe is overtaxing profits, incomes and wages and under-taxing consumption
- Wealthy European nations become self complacent.
- Longer working hours could significantly boost Europe's growth.
- Europe is over-regulating the informal economy
- Deficit spending has no effect on growth (when households are over-consuming)

These empirical findings are all related to the demotivation of productive participation in the official economy because of the laming tax burdens as well as an unbalanced tax structure, penalising too much labour, saving, investment, and profit.

A change in taxation policy can effectively remedy these European illnesses of poor participation levels, short working hours, lack of entrepreneurship all resulting in poor wealth growth. Tax policies should be aimed at providing incentives to work, to save, to invest and to improve the entrepreneurial climate. Besides a drastic reduction of the overall tax burden a shift of the burden from labour, profits and savings to consumption taxes could also substantially boost growth.

Obviously Europe's plans to gradually raise taxes on savings to 35% by 2011 go into the wrong direction and will have the opposite effect of providing incentives to higher over-consumption at the expense of savings and investment expenditures. Also E.U. plans to federally over-ride member state tax reductions by setting minimal tax rates, would have the contrary effect of obstructing the recent

trend towards pro-growth tax policies such initiated and democratically decided by some of the (new) member states.

As to monetary policy following empirical evidence was found

- Inflation proves disastrous for growth in all regressions with time-lags of 1,2,3 and 4 years.
- The growth effects of Exchange rate shocks and $/€ currency rate are limited and short lived.
- No positive growth effect from low interest rates could be found.

As to European integration following empirical evidence was found

- Membership of the EU Common market is highly beneficial to growth of member states.
- The early introduction of the Euro and the deflationary effects of the stabilisation pact have been devastating for Europe's wealth creation.
- Small countries perform significantly better.

The benefits of a huge borderless consumer market are overwhelming. The economic growth is at least 3% higher in the EU countries than in the European countries outside the EU. However the disadvantages of a common monetary policy and the early introduction of the Euro is likely to erase all common market benefits. The regressions furthermore show that small nations significantly perform better than large countries. This is mainly due to over-centralised administration in large countries where "one size fits all" measures negatively affect growth prospects of particular sub regions. The same danger of over-centralised decision making applies to Europe as a whole.
European cultural diversity is reflected in major differences in the social, cultural and economic structures between member states. European nations are also not eager to give up these historical differences and their cultural identity. As a consequence, attitudes and political preferences will continue to differ in many areas of public policy and attitudes and national interests will continue to conflict with each other.

Setting common policies for the whole European Union, under these circumstances cannot but result in either grey compromises or in policies that conflict with the national interests of at least some member states. Both lead to infectivity of the measures taken resulting and in overall slower growth. A typical example of such a contra-productive common policy was the early introduction of Euro and common monetary policy, at a time when economies were insufficiently harmonised and opposite monetary policies would have been appropriate. Budgetary targets in the stabilisation pact accompanying the Euro-experiment have been translated in savings on social outlays rather than in slimming down government, and have proved deflationary and particularly devastating to member states passing through the depth of their business cycle, at the moment when the experiment was started.

Europe's opportunities

Europe's common market has been a huge achievement for the benefit for all participating nations. Europe's mistake would be sacrificing those achievements for the creation of a bureaucratic superstate similar to former Soviet Union. Over-centralised decision making imposing endless rules aimed at regulating every aspect of daily life has the net effect to stifle enterprise and squelch innovation.
Europe has the greatest potentials in the world: The world's biggest single consumer market, excellent climate and infrastructure, high levels of education, exceptional industrial productivity, good labour ethic, "fair business" morality, and not in the least the enormous potential provided by the opening of the iron curtain. For the first time since two generations Central European neighbours have acquired freedom and the long awaited opportunities to self determination and self realisation.

Europe's Stagnation: An Organised Man-Made Disaster

The year 2004 was one for the record books: the world economy grew at its fastest rate in almost three decades. Despite the favourable cyclical conditions and its huge potential, Europe's economy is in a deplorable state. While the world economy is booming at a growth rate of over 4%, while China is growing at 10%, India at 9% and the USA at over 4%, Europe's growth is stagnating at an embellished 1.5%. Static or falling productivity, stagnant production, and appalling levels of unemployment are the salient factors. Germany's unemployment is above 5 million but could be as high as 6 million when the "hidden unemployed" are taken into account. These figures equal those of 1932, at the depths of the Great Depression and just before Hitler came to power.

The reality of Europe's ailing economy is contrasting sharply with the inflated expectations promised at the launch of political projects such as monetary union or the Lisbon Strategy. These European policies have been ill advised by an elite of academic technocrat's who are either blinded by ideology or stand too far from reality to discern the real causes or Europe's stagnation. Their strategies have in stead produced poor growth, unemployment, bureaucracy and abandonment of whole sectors of industry. Ever more doubts are arising about the scientific quality of their analysis and their failure to identify causes and remedies for Europe's stagnation.

Obviously their strategies are not working and the challenges of globalisation and of Europe's greying population make policy changes urgent. The reality is that the productive sector can no longer bear the burden of the unproductive government overhead. Ever more workers and businessmen face difficulties in paying the bills. The reality is that the productive sector is tired of expensive technocrats telling them how to bureaucratise its work. Managers are tired of technocrats hindering them at their task of producing wealth. The reality on Europe's work floor is that managers and personnel are demotivated and increasingly revolting against the persisting slavery of being confiscated over 50% of the fruit their labour, leaving them too little for their necessary innovations. Demotivation is the real cause of Europe's stagnation and the ultemate reason why ever more businesses flee Europe's tax misery. Belgian captains of industry selling out their crown jewels such as Quickstep, Domo, Balta are only the most visible sighn of the oncoming desaster. Of a much larger impact are the hundreds of smaller entrepreneurs scaling down or leaving in silence whilst innumbrable others never start up.

Europe is not working simply because it does not pay to work after the taxman has taken his share. Experimental cures of the symptoms do no longer help. It is time to tackle the true and ultimate cause of Europe's stagnation, which is nothing less than demotivation. It is time to lift bureaucratic and fiscal burdens. If not Europe will continue to lag behind ever further, ultimately resulting not only in economical, but also in cultural and moral decline.

Ireland's Realistic Alternative shows the Way

The fact that the Irish economy has been booming at an annual growth rate of over 5.6% for over 20 years proves that their alternative policy is successful and realistically possible within the actual European framework. Ireland has proven that low taxes and a flat tax structure is effective in both creating wealth and jobs and can provide the resources needed for Europe's wide range of cultural, environmental and social initiatives, as well as for the costs of ageing.

The historical and scientific evidence in favour of a growth enhancing strategy such as the Irish is overwhelming. Policies stimulating participation and production have simply worked everywhere where they were applied. That was the case in the U.S. under Reagan, that was the case in Iceland under Oddson, this is the case in Ireland now, and even German's "Wirtschaftswunder" under Erhard was a model of a production stimulating policy characterised by robust tax cuts.

Ultimately, such strategy is based on the simplest economical principle: A family that spends more then it earns becomes poor. That is a fact households and that is a fact for nations. A country that produces more than it consumes becomes wealthy. If one wants wealth one should boost production and not consumption. The principle is in fact as simple is that.

PART V. Sources

ANTONIO ALFONSO, (2003) ECB Working papers. *Public Sector Efficiency: an international comparison*

CAGLA OKTEN, (2001) Louisiana State University *Does the Size of the Bureaucracy Matter?*

CAREY David and RABESONA Josette (2002) *Tax Ratios On Labour And Capital Income And On Consumption* http://www.oecd.org/dataoecd/42/37/22027720.pdf

CHARLES WYPLOSZ (2000) National Bank of Belgium *Economic growth and the labor markets: Europe's challenge*

DAVID ALLEN, (1998) Int.Schumpeter Society *The Limits of Government On Policy Competence and Economic Growth*

DAVID SMITH (2001) *Public Spending and Economic Performance*

FRIEDRICH SCHNEIDER (2002) University of Linz, *The Size and Development of the Shadow Economies in OECD Countries*

GRAEME LEACH (2003) *The negative impact of taxation on economic growth*

JAMES GWARTNEY (1998) Florida State University. *The size and functions of government and economic growth*

JIM SAXTON (1998) *Government size and economic growth. Prepared for the joint economic committee*

MEHMET S. TOSUN, (2003) *West Virginia University Economic growth and tax components:an analysis of tax changes in OECD*

MERCEDES GARCÍA-ESCRIBANO AND GIL MEHREZ (2004) *The Impact Of Government Size And The Composition Of Revenue And Expenditure On Growth* http://www.fma.gv.at/de/pdf/selected.PDF

PETER SJOBERG (2003) *Government Expenditures Effect on Economic Growth - the case of Sweden (1960-2001)*

PRIMOž PEVCIN (2004) *University of Ljubljana, Does optimal size of government spending exist?*

RICHARD K. VEDDER AND LOWELL E. GALLAWAY (2000) *Florida State University Government size and Economic growth*

ROBERT E. LUCAS, (1995) Jr, *Monetary Neutrality, Prize Lecture,* http://Nobelprize.Org/Economics/Laureates/1995/Lucas-Lecture.Pdf

RUUD A. DE MOOIJ (....) *Erasmus University Rotterdam; Welfare effects of different public Expenditures and taxes in the netherlands*
THE GLOBAL TAX JUSTICE NETWORK: (2003) *Taxing wages* http://www.taxjustice.net/e/about/index.php

VITO TANZI AND LUDGER SCHUKNECHT (IMF, WTO, 2000) *Can Small Governments Secure Economic and Social Well-Being?*

WILLIAMS DE BROË (2002), *Is High Public Spending Good or Bad for You?*

Appendix 1: Comparison With Other Studies

A. Studies Concerning Growth Effects Of Government Expenditures

The Negative Impact Of Taxation On Economic Growth

Graeme Leach (2003)
http://www.reform.co.uk/filestore/pdf/negativeimpact.pdf

Graeme Leach gave an overview of empirical research projects studying the impact of taxation on economic growth. Although all studies included time periods as early as 1970, during which some positive impact of government spending has taken place, all these studies found a negative overall effect of government spending. The differences in the values of the elasticity's are due to the differences in time periods and the choice of the country groups. However the fact that all studies include time periods earlier to 1985 during which in some countries public spending was below the optimum level, leads to an underestimation of the negative growth effects of excessive government spending.

Table 2: The negative impact of taxation on economic growth

Study	Coverage	GDP impact
Cashin (1995)	23 OECD countries over the 1971-1988 period.	1% point of GDP increase in tax to GDP ratio lowers output per worker by 2%.
Engen & Skinner (1996)	US modelling together with a sample of OECD countries.	2.5% point increase in tax to GDP ratio reduces GDP growth by 0.2% to 0.3%.
OECD - Leibfritz, Thornton & Bibbee (1997)	OECD countries over the 1965-1995 period.	10% point increase in tax to GDP ratio reduces GDP growth by 0.5% to 1%.
OECD (1997) additional model simulations	European Commission Quest 2 - model simulations.	1% of GDP rise in labour taxes reduces UK GDP by 2.4% - versus baseline level.
Bleaney, Gemmell & Kneller (2000)	17 OECD countries over the 1970-1994 period.	1% point of GDP increase in distortionary tax revenue reduces GDP growth by 0.4% points.
Folster & Henrekson (2000)	Sample of rich OECD/non-OECD countries over the 1970-1995 period.	10% point increase in tax to GDP ratio reduces GDP growth by 1%.
Bassanini & Scarpetta (2001)	21 OECD countries over the 1971-1998 period.	1% point increase in tax/GDP ratio reduces per capita output levels by 0.3% to 0.6%.
PricewaterhouseCoopers (2003)	18 OECD countries over the 1970-1999 period.	1% of GDP rise in distortionary taxation reduces GDP growth by 0.2% to 0.4%.

The Size And Functions Of Government And Economic Growth

James Gwartney (1998) Florida State University.
http://www.house.gov/jec/growth/function/function.pdf

We quote the executive summary of this study Prepared for the Joint Economic Committee in Washington. Results are largely consistent with the WFA findings.

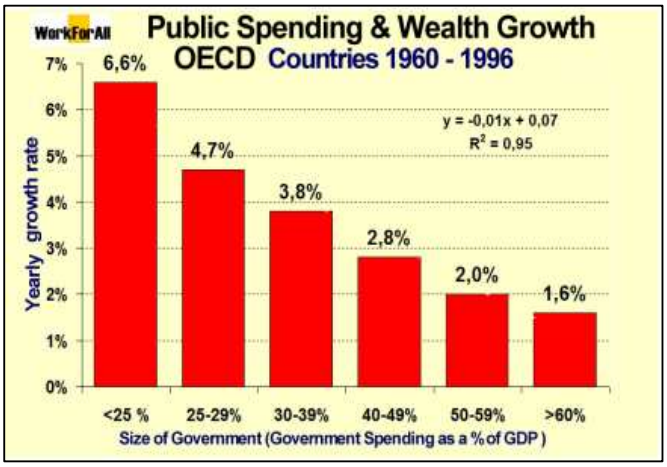
Executive Summary

1. This paper shows that excessively large government has reduced economic growth. These findings present a compelling case that rather than devising new programs to spend any surplus that may emerge from the current economic expansion, Congress should develop a long-range strategy to reduce the size of government so we will be able to achieve a more rapid rate of economic growth in the future.

2. Government provision of both (a) a legal and physical infrastructure for the operation of a market economy and (b) a limited set of public goods can provide a framework conducive for economic growth. However, as governments move beyond these core functions, they will adversely affect economic growth because of (a) the disincentive effects of higher taxes, (b) diminishing returns as governments undertake activities for which they are ill-suited, and (c) an interference with the wealth creation process, because governments are not as good as markets at adjusting to changing circumstances and finding innovative new ways of increasing the value of resources.

3. In the United States, government expenditures as a share of GDP have grown during the last several decades. At the same time, the investment rate has declined and the growth rates of both productivity and real GDP have fallen. An empirical analysis of the data from 23 OECD countries shows a strong negative relationship between both (a) the size of government and GDP growth and (b) increases in government expenditures and GDP growth. A 10 percentage point increase in government expenditures as a share of GDP is associated with approximately a one percentage point decline in the growth rate of real GDP.
4. An analysis of a larger data set of 60 countries reinforces the conclusions reached by analysing OECD
5. After adjustment for cross-country differences in the security of property rights, inflation, education, and investment, higher levels of government spending as a percentage of GDP exert a strong negative impact on GDP growth.
6. The five fastest-growing economies in the world from 1980 to 1995 had total government expenditures as a percentage of GDP averaging 20.1 percent, which is less than half the average of OECD countries.

7. If government expenditures as a share of GDP in the United States had remained at their 1960 level, real GDP in 1996 would have been $9.16 trillion instead of $7.64 trillion, and the average income for a family of four would have been $23,440 higher!



8. The OECD countries currently spend 15 percent of GDP or less on the core functions of government-protection of persons and property, national defence, education, monetary stability, and physical infrastructure. When governments move beyond these core functions, the empirical evidence indicates that they retard economic growth. The reduction in GDP growth rates in the United States and in many nations around the world can be traced directly to their increases in government expenditures far in excess of the growth-maximising level

Does Optimal Size Of Government Spending Exist?

Primož Pevcin (2004) University of Ljubljana Faculty of Administration
http://soc.kuleuven.be/pol/io/egpa/fin/paper/slov2004/pevcin.pdf

Introduction

Growth theory is an important part of modern macroeconomics. The analysis of growth has long been based on the Solow (1956) "growth accounting" approach, also termed as neo-classical growth theory, which has two important predictions about growth in the long run. These predictions are that economic growth occurs as a result of exogenous technological change, and that income per capita of countries will converge. Since it is presumed that all determinants of growth are exogenous, it is obvious that government policy cannot affect growth rates, except temporarily during the transition of economies to their steady state. Consequently, the role of government in growth process was usually not investigated in standard neo-classical growth models. The advent of the class of growth models developed by Romer (1986), Lucas (1988), Barro (1990) and Rebelo (1991), which in essence constitute a new, endogenous growth theory, has caused that the view on the role of government in growth process changed. According to this theory, both transition and steady state growth rates are endogenous, implying that also long-run economic growth rates are endogenous. There are several factors that should be important for determining long run growth, although in all endogenous growth models, government can influence growth, either directly or indirectly (see Brons, de Groot and Nijkamp, 1999). As a result, long-term growth rates can differ across nations, and there is no necessity that convergence in income per capita should occur. More significantly, as Dar and AmirKhalkhali (2002) report, a major implication of endogenous growth models is that government policy can have wide-ranging implications for a country's long-run growth performance. Namely, the three main fiscal instruments, being taxation, expenditure, and the aggregate budgetary balance, affect long-term growth through their effects on the efficiency of resource use, the rate of factor accumulation and the pace of technological progress.

Concluding remarks

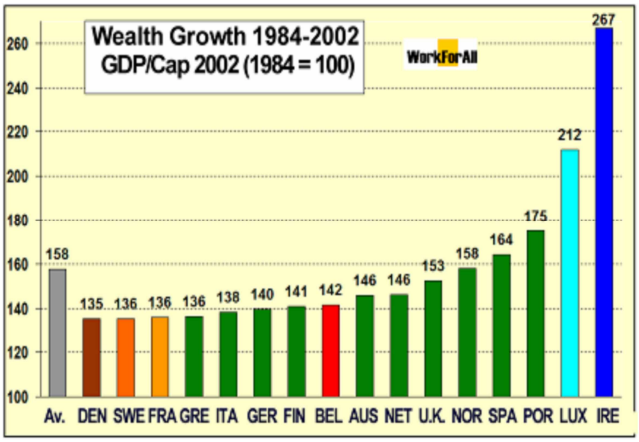
A substantial broadening in the scope of government activities occurred in recent decades in the majority of developed countries, primarily due to the development of modern welfare states. However, those welfare states have faced with several problems, especially in the form of efficiency losses from redistribution and disincentives of high taxation, which have obviously caused the decline of long-term GDP growth. Although negative and statistically significant relationship between government size and GDP growth has been established in this and several other studies, mainstream theory predicts that the negative effect should be expected in countries where the size of government sector exceeds a certain threshold. Consequently, optimal size of government sector from GDP growth perspective should exist. The panel data estimates of Armey Curve suggest that optimal size of government in the sample of 12 European countries is approximately between 36 and 42 percent of GDP, indicating that potential scope for reduction of government spending ratio is from approximately 19 to approximately 30 percent. However, given the fact that large differences in the size of government across countries included in the sample exist, some theoretical as well as methodological considerations about panel data estimation occurred. Consequently, separate time series data estimations are implemented, implying, on average, approximately 19 percent reduction in government spending ratio.

Fiscal Policy, Employment And Growth: Why Is Continental Europe Lagging Behind?

Tine Dhont & Freddy Heylen (2005)
http://www.feb.ugent.be/fac/research/WP/Papers/wp_04_275.pdf

This overview would not be complete without mentioning the remarkable work of this study conducted with the support from the Belgian Program on Interuniversity Poles of Attraction, initiated by the Belgian State. These authors claim nothing less than that Scandinavian Model would be superior to Average European policies, in spite of basic growth and employment statistics showing the opposite. Contrary to the overwhelming evidence in American literature they also claim that distorting taxes may raise long-run growth and employment when taxes are not too high and when they are used to finance productive government expenditures.

This study finds higher growth and employment in Scandinavia **(?)**, thanks to their policies characterised by high taxes, and high productive expenditures and low transfers related to structural non-employment. Contrary to European policies that yield lower growth and poor employment due to their high taxes, high transfers, and lower productive government expenditures. In addition to the potentially positive effect of taxes and productive government expenditures, this paper also finds a strong negative relationship between the transfer replacement rate and employment and long-run growth.



Although their findings that “productive expenditures” have higher positive growth effects over consumption expenditures are consistent with the WFA study, we cannot but strongly contest their policy advice to adopt Scandinavian policies in Europe, as both growth performances and job creation have proved deplorable in Scandinavia during the last 20 years.

Basically the study compares "the European Model" to the "Scandinavian model". The main methodological error of their study lies in the selection of the period and countries considered in the Scandinavian-European comparison. We quote the motivation for their selection:

“We consider the period 1969-2003. As to Europe, we will in our discussion basically focus on averages for two relatively homogeneous country groups: continental Europe (including Belgium, France, Germany, the Netherlands and Italy) and Scandinavia (including Denmark, Finland, Norway and Sweden)..... Finally, note that we do not consider countries like Ireland, Spain and Portugal. The major influence of European integration and conditional convergence effects on these countries' growth performance goes beyond the framework developed here.”

In the selection of their data the authors arbitrarily eliminate Ireland, Spain and Portugal (3 out of the 4 best performing European countries) from their European country list and add Oil wealthy and non EU-member Norway (over 20% of GDP is oil) to their Scandinavian selection, resulting of course in results glorifying the Scandinavian model. It is hardly conceivable that professors of one of the major Belgian universities would not be aware of the distortion of the results caused by their arbitrary country selection. Their text therefore must be regarded as a pamflet promoting an ideology of big government, rather than as a study with any scientific value.

B. Studies Concerning Growth Effects of Tax Structure.

The Impact Of Government Size and Composition of Revenue and Expenditure on Growth

Mercedes García-Escribano And Gil Mehrez (2004) IMF.
http://www.fma.gv.at/de/pdf/selected.PDF

These results of our investigation are confirmed in large in the above study of the IMF of July 2004. The IMF uses the identical investigation methods as we did but examined a different country group over a different period of time (1970-2002). The IMF comes to the same significant conclusions that government spending and a high ratio direct/indirect tax has a negative effect on the growth. The IMF study however results in smaller significance's and a smaller regression coefficient due to the smaller number of explanatory variables. Also the fact that the IMF implied in its study a period during which some countries were still at the left side of the Armey-optimum explains the smaller value of the regression coefficient relating to the size of government.

We quote their conclusions:
The empirical analysis presented in this paper shows Austria can enhance its long-term growth rate by reducing the size of its public sector and shifting the burden of taxes from direct to indirect taxes. We demonstrate that part of the impact of government size and budget composition on economic growth occurs through investment and employment. Further research is needed to investigate the direct impact of the government on productivity growth rate, and the specific channels through which the government influences productivity.

Fiscal Policy, Private Investment And Economic Growth: Evidence From G-7 Countries

Kerim Peren Arin. (2004) Department of Commerce Massey University Auckland New Zealand
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=438785#PaperDownload

Abstract
Measuring the effects of fiscal policy on economic growth is difficult, because fiscal policy variables are influenced by changes in income. This paper uses an unbalanced panel data set for G-7 countries for the period 1965-2000 that includes annual estimates of cyclically adjusted government expenditures, capital outlays, income tax revenues, indirect tax revenues, corporate tax revenues and social security tax revenues, based on definitions developed by OECD revenue statistics. The percentage share of these estimates in GDP is used to investigate the effects of fiscal policy on economic growth, and results are compared with regression results that use 5-year averages of cyclically unadjusted variables. The empirical results from both sets of regressions suggest that only taxes on household income and government expenditures have negative effects on per capita income growth. We consolidate our findings by showing that both government expenditures and income taxes have distortionary effects on private investment.

Concluding thoughts
This study provides further evidence that fiscal policy does indeed matter for growth. Our results suggest that taxes on household income interfere with the labor/leisure choice of the individuals and create distortions for output growth whereas other tax groups do not. Contrary to previous literature, we do not find any harmful effect of social security taxes, which may be due to using a different sample (G-7 countries). Consequently, different tax groups should be incorporated separately into empirical studies. Our results also suggest that the composition of the fiscal response is more important than the overall magnitude in the determination of economic growth.
Consistent with recent theoretical and empirical literature, we find that when government wage bill is included in government expenditures, the spending side also has distortionary effects on private investment and growth. Perhaps surprisingly, the spending side has larger effects compared to the revenue side, in both magnitude and significance

Growth, Public Policy and Government Budget Constraint: Evidence from OECD Countries

by Richard Kneller, Michael Bleaney and Norman Gemmell (1999)
(School of Economics, University of Nottingham, Nottingham NG7 2RD, U.K.)
http://www.nottingham.ac.uk/economics/research/dp/school_dp/dp.98.14.pdf

Abstract
This paper examines whether the evidence from OECD countries is consistent with the predictions of endogenous growth models that the structure of taxation and public expenditure can affect the steady-state growth rate. We find strong support for the Barro (1990) public policy endogenous growth model for a panel of 22 OECD countries over the period 1970-95. Specifically we find that (1) distortionary taxation reduces growth, whilst non-distortionary taxation does not; and (2) productive government expenditure enhances growth, whilst non-productive expenditure does not. Our results are robust to different time aggregations of the data, and the estimates are free from biases associated with incomplete specification of the government budget constraint.

Conclusions
Theory predicts that the impact of fiscal policy on growth depends on the structure as well as the level of taxation and expenditure. We have attempted to test this systematically using a panel data set for 22 OECD countries over the period 1970-95, aggregating the data into five-year averages to take out short-run factors. An important feature of our methodology is that we have taken full account of the implicit financing assumptions associated with the government budget constraint. Few previous studies have done this, and none for such a comprehensive data set (e.g. Miller and Russek (1993) use annual data for the period 1975-84, although they do have a larger sample of (39) countries). Failure to take account of the government budget constraint will in general introduce a bias into the regression coefficients, and we have shown that this bias can be substantial.

The government budget constraint implies that the estimated coefficient of each fiscal element within a growth regression will depend on how it is financed. The effect of an individual element cannot be isolated, since it is only possible to estimate the difference between the coefficients associated with each element of the government budget. Where theory predicts the coefficients to be zero, however, it is possible to test the equality of these coefficients in a growth regression. We find expenditures classified as non-productive and tax revenues classified as non-distortionary to have equal coefficients, and cannot reject the hypothesis that these variables have a zero impact on growth, consistent with the predictions of Barro (1990). When financed by some combination of non-distortionary taxation and non-productive expenditure, an increase in productive expenditures significantly enhances growth, and an increase in distortionary taxation significantly reduces growth. Both of these results are consistent with the Barro (1990) model. We have tested the robustness of our results to various changes in specification, and found them to be robust. We have found, however, that the magnitude of the estimated impacts of (productive) expenditures and (distortionary) taxation is sensitive to the process of five-year averaging of the data. This suggests that considerable caution should be exercised in predicting the precise growth effects of fiscal changes; further work should seek to identify those magnitudes more reliably. Nevertheless, even our lowest estimates suggest that increasing productive expenditure or reducing distortionary taxes by 1% of GDP can modestly increase the growth rate (by between 0.1 and 0.2 of a percent per year).

Restructuring the Canadian Tax system changing the Mix of direct and indirect Taxes

Bev Dahlby (2001) Department of Economics University of Alberta
http://oldfraser.lexi.net/publications/tax_reform/dahlby_1.pdf

Introduction
John Stuart Mill defined a direct tax as one that is levied on the individual or firm that is "intended" to pay it. Indirect taxes are, by default, those taxes where the individual or firm, from whom the taxes are collected, is not intended to bear the burden of the tax. This distinction between direct and indirect taxes is necessarily highly imprecise because it is frequently difficult, if not impossible, to discern the

legislators' intentions with regard to who should bear the burden of a tax or their understanding of how the tax burden is likely to be shifted through the adjustment of market prices. Overtime, however, indirect taxes have come to mean sales and excise taxes on goods and services, while direct taxes usually refer to personal and corporate income taxes. Canada, as well as most OECD countries, relies on a mix of direct and indirect taxes. As Figure 1 indicates, Canada, the United States, Australia, New Zealand and Japan place a greater reliance on taxes on income and profits and a lessor reliance on taxes on goods and services than the European countries of France, Germany, Italy and the United Kingdom. Determining the mix of direct and indirect taxes is a fundamental tax policy choice. On what basis should this choice be made? I will approach this issue by first noting that the taxation of goods and services is a form on consumption taxation. Therefore the decision to rely to a greater or lessor degree on indirect taxes is ultimately a decision to concerning the level of consumption taxation. This is the main issue that is addressed in this paper. I review the theoretical models and some of the empirical 2 evidence regarding the efficiency consequences of consumption taxes. My reading of the evidence suggests that while the level effects (static efficiency gains) from adopting a consumption tax are ambiguous, there is mounting evidence from simulation models and econometric studies that switching to consumption taxation has very significant growth, or dynamic efficiency, effects. In Section 3, I argue that consumption taxation is a fair or equitable form of taxation if we adopt the intuitively appealing notion that those with a higher standard of living should pay higher taxes. Increasing reliance on consumption taxation does not necessarily imply an increased reliance on indirect taxes because consumption taxes can be imposed through an expenditure tax, which is a form of direct taxation. In the final section of the paper, I briefly consider the direct vs. indirect tax mix under a consumption tax system. I argue that one would want to impose both direct and indirect taxes under a consumption tax system because both types of taxes are subject to different forms of tax evasion and avoidance. Therefore a combination of direct and indirect consumption taxes would produce a more efficient and equitable tax system than simple reliance on one from of consumption taxation.

Conclusions and policy implications

Endogenous growth models and recent econometric studies indicate that increasing reliance on consumption taxes can boost the long-run growth rate of the economy. Therefore, an increased reliance of consumption taxes would raise Canadian living standards significantly over time. The chief obstacle to the adoption of consumption taxation is the perception that consumption taxes are regressive while most Canadians favour a progressive tax burden under which those with a higher income bear a higher share of the tax burden than those with lower incomes. However, income is not a proper base for measuring the progressivity of a tax system. As argued above, the proper base is individuals' consumption of goods and services over a number of years since it reflects their real standard of living. It follows that the progressivity of the tax system should be measured by individuals' tax burdens as a percentage of consumption over a long period of time. Measuring tax progressivity in this way means that consumption taxes are proportional or slightly progressive, not regressive. Redistributive policy objectives should be pursued through government expenditures rather than taxes because redistributive expenditures are more cost effective than highly progressive taxes. Finally, and most importantly, in discussing the redistributive effects of switching to consumption taxes, we must not overlook "the rising tide that floats all ships." A higher rate of economic growth due to the switch to growth-enhancing consumption taxes will, over time, improve everyone's standard of living, rich as well as poor. The policy implications that flow from this analysis are relatively straightforward and "do-able." Canada's personal income-tax system, which is already three-quarters of the way to a consumption tax system, should be fully converted to a consumption tax system. This goal could be reached easily by removing existing limits on RRSP and RPP contributions and by introducing a savings plan where taxes are prepaid, along the lines of the Kesselman and Poshmann proposal. Any reductions in tax revenues from these reforms should be offset through increases in the GST rate. The provincial governments that have not already done so should adopt the GST as the base for their sales taxes. Some realignment Changing the Mix of Direct and Indirect Taxes 103 of tax powers between federal and provincial governments would be desirable to improve transparency and accountability, with the federal government having the dominant role in the sales tax field, and the provincial governments having a larger role, if not the dominant role, in the expenditure tax area. The potential payoffs for

Canadian society from switching to a consumption tax system are so significant that these tax policy changes must receive serious consideration.

Estructura Fiscal y Crecimiento Económico en la OCDE.

Rafael Doménech y José Ramón García Julio (2000). Universidad de Valencia, Spain.
http://iei.uv.es/~rdomenec/efce_1/efce_1.pdf

Resumen
Este trabajo analiza cómo ha afectado la estructura impositiva al crecimiento de los países de la OCDE en el periodo 1960-1995. Para ello, se presentan los resultados de simulaciones que ilustran los efectos de la estructura impositiva sobre el crecimiento y el nivel de la renta per capita utilizando modelos que, segén los supuestos sobre el tipo de rendimientos de los factores acumulables, exhiben crecimiento endógeno o exógeno. En general, la evidencia empírica confirma los resultados teóricos, segén los cuales la financiación de un determinado nivel de gasto péblico debe evitar un peso excesivo de imposición sobre las rentas del trabajo y, sobre todo, de las rentas del capital, por sus consecuencias negativas sobre la acumulación de capital físico y sobre la productividad del trabajo.

Conclusiones.
En este trabajo se han analizado los efectos de la estructura fiscal sobre el crecimiento económico en una muestra de países industrializados. Los resultados obtenidos al estimar ecuaciones de crecimiento y de inversión privada parecen apuntar la existencia de efectos sobre el crecimiento a través de la acumulación de capital, que a su vez pueden interpretarse como una manifestación de efectos sobre el nivel de la productividad del trabajo más que sobre su tasa de crecimiento a largo plazo. En general, la evidencia empírica confirma los resultados teóricos, segén los cuales la financiación de un determinado nivel de gasto péblico debe evitar un peso excesivo de imposiciàn sobre las rentas del trabajo y, sobre todo, de las rentas del capital, por sus consecuencias negativas sobre la acumulaciàn de capital físico y sobre la productividad. En el ámbito de las recomendaciones de política econàmica, estos resultados son favorables a las propuestas que apuntan a una reforma impositiva que aumente la imposiciàn indirecta a cambio de una reducciàn en la imposiciàn directa, garantizando el equilibrio presupuestario, como forma de reducir las distorsiones que genera la fiscalidad sobre el funcionamiento de la economía y las decisiones de los agentes privados. No obstante, las reformas impositivas en esta direcciàn van posiblemente asociadas a una mayor regresividad del sistema impositivo que nos puede alejar, en principio, del objetivo de equidad. La soluciàn a los problemas de pobreza y marginalidad dentro de las sociedades occidentales debería acometerse mediante programas de gastos más que a través de la imposiciàn directa, formalmente más progresiva, pero que ha podido tener escasos resultados y que parece haber afectado negativamente a las perspectivas de crecimiento de estas economías. Al valorar los problemas que plantea el trade-off existente entre eficiencia y equidad conviene recordar que, a parte de sus efectos distorsionadores, una financiaciàn que descansa en una imposiciàn directa excesiva incentiva el fraude fiscal y perjudica notablemente a la equidad, ya que el impuesto más injusto es aquel que no se paga.

A Growth Maximising Tax Structure for New Zealand.

JOHANNAH BRANSON (2001) University of Exeter, Exeter,
http://www.terry.uga.edu/~knox/webdocs/Branson2001.pdf

Abstract
Annual growth rates of real GDP in New Zealand have varied widely, from 18% to .8%, since World War II. During this period the tax burden (the ratio of tax revenue to GDP) has trended upward from 23% to 35%. The tax mix (the ratio of indirect taxes to direct taxes) has varied between 0.31 and 0.75, having increased recently with the introduction of the goods and services tax. In this paper we estimate a combination of the tax burden and the tax mix which would maximise the rate of growth of real GDP. We find that such a tax structure would have a time-varying tax burden with a mean of 22.5%, and a time-varying tax mix with a mean of 0.54, which implies a mean share of direct taxes in total tax

revenue of 65%. We also find that a move to such a tax structure would generate nearly a 17% increase in real GDP, and while this increase would yield a 6% reduction in tax revenue to the Treasury, it would deliver a 27% increase in purchasing power to the remainder of the economy.

Summary and Conclusions

Anation's tax structure has important consequences for the rate at which its economy grows. In this paper we have attempted to uncover the relationship between New Zealand's tax 144 BRANSON AND LOVELL structure and the rate of growth of its real GDP. Two assumptions underlie our analysis. The first assumption is that in evaluating the structure of the tax system, the driving policy objective is one of maximising the rate of growth of real GDP. It is possible that different policy objectives would lead to different evaluations. The second assumption is that the tax structure is adequately characterised by two dimensions: the tax burden and the tax mix. In the Introduction we asked five questions concerning taxation and economic growth in New Zealand. In Section 2 we developed an analytical framework capable of providing answers to each of these questions. In Section 3 we applied this framework to New Zealand macroeconomic data covering the period 1946–1995 in an effort to provide quantitative answers to each of these questions. We have found that an excessive tax burden has done far more damage to economic growth than has an inappropriate tax mix. However, the damages are measured, reducing the tax burden is a more potent way of enhancing economic growth than is fine-tuning the tax mix. This is due in part to the fact that the actual tax burden has consistently been far higher than the growth-maximising tax burden, while the actual tax mix has typically been much closer to the growth-maximising tax mix. Our second finding concerns the cost of maintaining the existing tax structure, or the potential benefit to be gained by adopting a growth maximising tax structure. One measure of the cost or the benefit is provided by the output gap, the difference between growth maximising and observed real GDP, which we estimate to have been 16.4% of observed real GDP in 1995. Another measure of the cost or benefit is provided by the composition of the output gap. We estimate that in 1995 a growth maximising tax structure would have reduced tax revenue to the Treasury by 10.8%, and would have increased purchasing power in the remainder of the economy by 31%.

Taxation, Individual Incentives and Economic Growth

Alex Robson School of Economics Australian National University Canberra,
November 2004
http://www.iref-europe.org/ang/pub/pub_contest/RobsonEssay.pdf

Abstract

Economists have long recognized that high levels of taxation may have adverse consequences for individual economic incentives. Standard microeconomic measures of the welfare costs of wage taxation reveal that these adverse effects can be considerable. To the extent that economic growth is a sensible indicator of economic welfare, taxes which reduce welfare will also tend to reduce economic growth. Thus, as a general proposition, higher tax rates should tend to have negative consequences for economic growth, but certain kinds of tax structures may tend to favour economic growth more than others. Overall, existing empirical evidence tends to suggest that higher taxes are associated with lower economic growth, but since no econometric test can prove the direction of causation in the true sense of that term, the direction of causality remains unclear. Nevertheless, this paper finds that for the case of personal income taxes, a positive correlation between higher growth and higher personal income tax rates does not tend to show up in OECD data for the 1980-2000 period. Indeed, in economies where substantial tax cuts took place during this period, per capita economic growth rates were almost double those enjoyed by economies where no substantial tax cuts took place.

Conclusions and Directions for Tax Reform

Smith's wisdom regarding the nature of taxation continues to elude some economists. Whatever view one takes of the merits or otherwise of higher taxes, it is simply erroneous to assert that, at current levels of taxation and spending, confiscating an additional dollar from an individual would have little or no effect on economic incentives. The reason is that personal income taxes not only reduce the ability of individuals to enjoy the fruits of our own labour; they also alter the incentives to work, consume and save, all of which have additional harmful economic effects. Because taxation always alters economic

choices, a dollar increase in government revenue often ends up costing the economy more in real terms than the dollar that is actually paid in taxes. Graduated personal income taxes systems tend to be more distortionary than flatter tax structures. This is confirmed by both microeconomic and macroeconomic studies. For an example of the latter, Cassou and Lansin (2004) simulate changes in the income tax schedule from a graduated-rate tax system to a flat tax. They examine an endogenous growth model and a standard neoclassical growth model. For the former, they find that a flat tax can permanently increase per capita growth by up to 0.143 percentage points per year. There are other important differences between graduated tax structures that currently exist in most advanced economies and flat, proportional taxes. Once a flat tax is chosen, further policy deliberations regarding changes in the tax system essentially involve only three choices — should the rate stay the same, be increased, or decreased? A tax increase for one group of taxpayers is a tax increase for all. The same applies to tax cuts. These observations immediately suggest why a system of graduated income taxes (and even, to a certain extent, the flat tax with a tax free threshold) tend to discourage reductions in tax rates, particularly at higher income levels. It is not at all obvious why one particular graduated tax schedule is "fairer" than any other. Any proposal to change a graduated tax schedule cannot be based on first principles, since nobody can agree on what makes one tax system more "progressive" than another. Hence, proposals for change usually involve setting different taxpayers against one another as political competitors. When a change in a graduated schedule if proposed, a tax increase for one group of income earners could mean a reduction for others, and vice versa. The same reasoning applies to income tax deductions for special interest groups or classes of individuals or income earners. Once these are entertained for one group, they could potentially be entertained for all groups, setting off a costly process of lobbying and political competition. As discussed above, not only does this involve a direct waste of resources on lobbying and so on; it creates greater administrative and compliance costs as the tax code 19 becomes progressively more complex and voluminous, as discussed earlier. This is wonderful for accountants and tax lawyers, but is a net loss for the economy as a whole. However, a flat tax which does not allow for any deductions or a tax-free threshold is administratively very simple, and easy to comply with. Whatever disincentive effects it creates are not altered by inflation. In most existing tax systems, changes in nominal wages (but not real wages) move some individuals into higher tax brackets ("bracket creep") when their real incomes have in fact not changed. With a flat tax, there are no "brackets" to creep into when one's nominal wage changes with inflation. Individuals pay a higher real tax bill if and only if their real wage increases. Moreover, they pay the same proportion of their income in taxes, which does not occur even when brackets are indexed for inflation as they are in the US. However, a flat tax which has a high marginal rate still distorts economic incentives and creates an excess burden. Indeed, a graduated tax system with low marginal rates may be preferable to a flat tax system with a high marginal rate. This suggests that it is pointless discussing flat taxes if government spending is not controlled. In fact, some economists have gone further and argue that implementing "efficient" taxes such as flat consumption taxes and flat income taxes may actually cause governments to spend more, since the economic costs of raising a particular amount of revenue under such systems are relatively lower. Because the "price" of increasing spending is lower, demand for spending rises. Flat taxes, it is argued, are so efficient that they create an incentive for governments to spend more money, which, as we have already mentioned, tends to distorts economic behavior in other ways. Regulatory agencies and policy institutions, like markets, are not perfect. We should avoid the presumption that "solutions" to problems (like the flat tax) can always be found. In most cases, we are faced with policy trade-offs, rather than policy solutions. This reflects a constrained view of economic policy making, which is a relatively recent way of thinking about policy formation issues. It can be contrasted with the older, unconstrained view of economic policy making, which tends to argue that policy "solutions" can always be found, and that regulatory and policy institutions themselves are not subject to the same kinds of failures that may affect markets (i.e. imperfect knowledge, informational asymmetries, distorted incentives, etc.). The key lesson is that tax reform is a policy process that can only be implemented by governments, and must be implemented within an imperfect world. A high flat tax is still a high tax, and, based on the available evidence, would still have adverse consequences for economic growth.

C. Concluding remarks

Most of the studies analysing growth effects in developed countries of government spending and different tax structures lead to similar empirical findings:

- Government spending above the optimal level causes significant growth slowdown.
- Direct taxes on income are the most distortionate taxes causing most harm to growth.
- A shift from direct taxes to consumption taxes can boost growth prospects

Generally speaking the WorkForAll study found empirical results with higher significance and higher absolute values of the regression coefficients than most prior studies. This is due to:

- The large number of and original selection of relevant independent variables determining growth. A larger number of determining factors evidently allows explaining growth with higher precision than studies considering fewer determining factors only.
- WorkForAll confined the study to the relative homogenous group of the EU15 welfare states.
- The WorkForAll study was confined to the time period since 1985, during which public spending increased overall above the optimal level over the investigated period. Most prior growth models have been considering vast periods from 1970 to 2003, during which both government under-spending and overspending have been co-existing. As a result, positive and negative growth effects of government spending on both sides of the Armey-optimum have been compensating each other in the linear regressions. This has resulted in grossly underestimated coefficients and significance of the growth effect of government spending in.

Appendix 2 : Ireland Rated As World's Best Place To Live

by Jason Gorringe

23 November 2004

Ireland has emerged as the best country in the world in which to live according to the latest quality of life index published by Economist magazine, with the Emerald Isle beating Switzerland into second place.

The World in 2005 survey, produced by the Economist Intelligence Unit, judged 111 countries according to a variety of criteria, using the usual factors such as income, growth, political stability, health, job security and climate, whilst also taking into account other quality of life factors it called "freedom, family and community life."

Translated to the EIU's one-to-ten rating system, Ireland scores 8.33, ahead of Switzerland on 8.07. With the exception of Australia in sixth place, the rest of the top ten constituted countries from Europe.

Meanwhile, the US achieved a ranking of 13th, and the UK just managed to scrape into the top 30, achieving a ranking of 29th. Unsurprisingly, Zimbabwe propped up the list with a score of just 3.89.

"Although rising incomes and expanded individual choices are highly valued, some of the factors associated with modernisation - such as the breakdown of traditional institutions and the erosion of family values - in part offset its positive impact," observed the report.

"Ireland wins because it successfully combines the most desirable elements of the new with the preservation of certain cosy elements of the old, such as stable family and community life," it added.

These non-economic factors also helped to propel Switzerland into second spot in the index.
"Switzerland is known for its civic virtues and strong sense of community, as well as [high] life expectancy," The Economist's Daniel Franklin told Swissinfo.

However, he added: "But clearly what will matter in future is continued economic growth."

In the works:

Appendix 3 Slimming Down Government :

Corporate governance and transparency for the Public Sector

Appendix 4 Flat Tax and Maximum Tax Proposals:

The benefits of a simple maximum tax.

Appendix 5 The WorkForAll Kickstart Plan To Bootstrap Growth