
AUSTRALIA

Important remarks:

- Australian fiscal year runs from July 1 to June 31
- The sources consulted for Australia are: IMF Recent Economic Developments, Budget documents, OECD Economic Surveys

Australia 1985

As explained in Devries et al. (2011), the Government elected in December 1984 announced a set of medium-term fiscal policy commitments, known as the Trilogy, which had as its aim the reduction of a large inherited budget deficit by cutting government spending. As the 1985-1986 Budget Speech explained, *“The Trilogy requires the Government not to increase the percentage of tax revenue above the 1984-85 share of taxation in the total economy. The Trilogy also commits us to reducing commonwealth government expenditure as a proportion of the total economy. And it requires a reduction in the size of the deficit”* (1985-86 Budget Speech, p. 3).

Thus, a multiyear program of deficit reduction based on spending cuts began in 1985. The Trilogy agreement prescribed a reduction of the deficit/GDP ratio, no increases in tax revenues and a commitment to a reduction of public spending as a percentage of GDP. The measures introduced in May 1985 prescribed a cut in public spending for both 1985 and 1986 (\$A 0.6 billion each year). Data about components are taken from IMF Recent Economic Developments 1986, p. 34.

Australia 1986

The fiscal consolidation initiated in 1985 continued in 1986, motivated by the reduction of the deficit, following the Trilogy agreement. The year is characterized by a large plan of spending cuts (\$A 0.93 billion in 1986, \$A 0.73 in 1987 and \$A -0.2 in 1988) approved in the 1986/1987 Budget. The latter Budget also introduced tax hikes, that were offset by a reduction of revenues generated by a decrease in the PIT rate that was included in the Personal Income Tax Reform announced in September 1985. Net tax consolidation measures amounted for \$A 0.41 in 1986, \$A -0.79 in 1987 and \$A -1.21 in 1988. Data about components are taken from the IMF Recent Economic Developments 1987 (p. 35 on).

Notes:

- The total amount of measures of tax adjustments slightly differs from the aggregate provided by Devries et al. (2011), but we included all of the measures listed by the IMF Recent Economic Developments.
- In the computations, we take into account all of the measures whose details are reported in the IMF Recent Economic Developments 1987 (p. 35 on) and we compute a residual in order to sum up to the aggregate impact of measures.
- Production bounty refers to the amount paid by a government for the achievement of certain economic or other goals.
- We excluded the following measures, being under the line: reduction of the allocation to the Australian Broadcasting Corporation, reflecting savings on current and capital expenditures; the obligation of Australian Telecommunications Commission to repay part of its outstanding debt to the Commonwealth; accelerated disposal of Commonwealth property.
- Other increase in outlays computation, calculate as residuals: $816-122-87=607$; $607/2=303.5$

Australia 1987

“Though significantly reduced, the current account deficit was still judged to be unsustainably high, and the level of external debt was continuing to grow, albeit at a slower rate. In the light of these continuing problems, the budget for 1987/88 further tightened fiscal policy.” (IMF Recent Economic Developments 1988 p.25)

In 1987 fiscal consolidation measures were fully attributed to the spending cuts amounting to \$A 1.08 for both 1987 and 1988. The consolidation introduced new measures in order to reduce outlays and implemented the measures announced in 1986. Data about components are taken from the 1988 IMF Recent Economic Developments, p. 25-26. Notice that for what concerns the change in the cumulative effects of measures introduced in the 86/87 Budget, we projected the share of measures in the original reform on the aggregate change computed between 1986/87 and 1987/88 (i.e. \$A -0.405 billion).

Notes:

- Considering the reduction in PIT, we note that is not a calendar year allocation, but the allocation of the effect for the fiscal 87/88.
- Notice that we deviate from Devries et al (2011) since some of the measures introduced in the Budget were extraordinary and under-the-line. They amounted to \$A 0.125 billion. And were the allocation to the Broadcasting Corporation and a repayment from the Australian Telecommunications Commission.

Australia 1993

The 1993/94 Budget introduced a four-year consolidation plan to reduce the budget deficit to around 1 percent of GDP by FY 1996/97. The bulk of the saving measures over the four years were planned on the revenue side (OECD Economic Surveys 1994, p. 41). *“The measures announced in the FY 1993/94 budget, following post-budget changes negotiated to achieve passage of the budget through the Senate, are expected to increase revenue by A\$ 6.9 billion and reduce outlays by A\$1.6 billion by FY 1996/97 compared with a “no policy change” baseline”*. Of these A\$ 6.9 billion, 3.6 billion include the deferral of the second tranche of personal income tax cuts which are delayed to 1 January 1996, and the rest of the measures are indirect taxes (excise duties on petroleum products and tobacco and a 1 percentage point increase in wholesale sales tax for most goods in the base. Since the amounts reported above represent cumulated savings, we assume that the flow of savings is equally distributed along the three fiscal years (1993-94, 1994-95, 1995-96) and we allocate the change in the first year to calendar years 1994 and 1995.

Australia 1995

Implementation of the multiyear fiscal consolidation program announced in the FY 1993/94 Budget continued in 1995, while also additional company and wholesale taxes were introduced (A\$ 2.37 for year 1995 and A\$ 2.37 for year 1996). The adjustment is motivated by the need to reduce budget deficit. All the measures fall on the revenues side and include increases in corporate taxes, wholesale taxes and indirect taxes in general. Data about fiscal components are taken from the IMF Recent Economic Developments 1996 (p.20) and the Australian Government “Budget Speech 1995-96” (p. 10, 11)

Notes:

- As it was unclear whether the wholesale tax increase was explicitly announced in advance or not, we assigned in to year 1995 as an unexpected measure.

Australia 1996

“Almost five years after the recession of the early 1990s ended, the Commonwealth Government’s budget is still in deficit to the tune of 2 per cent of GDP. Although this deficit is not as large as those in many other OECD countries, it is nevertheless high by Australian standards for this stage of the economic cycle. Action to address the budget deficit was required to ensure that over time the Commonwealth budget does not detract from national saving...” (OECD Economic Surveys 1997, p. 51)

Fiscal consolidation accelerated in 1996 with a new multiyear fiscal consolidation program and measures totaling A\$ 2.01 for 1996, A\$ 3.87 for 1997, A\$ 1.71 for 1998 and A\$ -0.15 for 1999. The Budget 1996/97 introduced measures both on spending and revenues. Data about fiscal components are taken from the OECD Economic Surveys 1997, p. 59.

Notes:

- The superannuation notion (one of the measures announced) refers to the arrangements which people make in Australia to have funds available for them in retirement. In Australia, superannuation arrangements are government-supported and encouraged, and minimum provisions are compulsory for employees.

Australia 1997

“The current government, elected in early 1996, has made reform of the fiscal framework and fiscal consolidation top priorities. ... The FY 1997/98 budget was intended to ensure that the Commonwealth fiscal position remained on a path consistent with its announced medium-term objective”. (OECD Economic Surveys 1998, p. 45)

Implementation of the fiscal consolidation program initiated in 1996 continued in 1997 and, with some additional measures, amounted to A\$ -0.12 in 1997, A\$ 0.44 in 1998, A\$ 0.45 in 1999, A\$ 0.11 in 2000 and A\$ 0.22 in 2001. The consolidation is composed by new measures introduced on the spending side and the continuation of the measures introduced in the 1996/97 Budget. Data about fiscal components are taken from OECD Economic Surveys 1998, p. 49.

Notes:

- Notice that we compute the components’ changes using the amounts in billion. This means that we find positive changes for both components and the aggregates also for the year 2000. However, we do not include this year because, as Devries et al. (2011) specifies, the measures are more than compensated by a fiscal stimuli of 1% of GDP (see footnote 11, Devries et al. (2011)).
- Fringe benefits, entering the direct tax measure bracket are paid by the employer and not by the employee.
- The measures announced in the 97/98 Budget were not included by Devries et al. (2011), however, since their impact are negligible only in 1997, we take them into account in the computation of fiscal shocks for years 1998 and 1999.

Final notes:

- Notes on 1978-1984. While fiscal policy tightening did occur during 1978-1982, it was primarily motivated by restraining demand and reducing inflation. Therefore, we do not record these policy measures as fiscal consolidation motivated primarily by deficit-reduction and fiscal sustainability considerations. The OECD Economic Surveys 1979 (p. 30) reports that the main objective of fiscal consolidation in 1979 was *“reducing inflation through the maintenance of tight demand management policies.”* The 1979-80 Budget re-emphasized the authorities’ commitment to restraining inflation, and introduced further tax increases (OECD Economic Surveys 1980, pp. 38-39). The key objective of the 1981-82 Budget was disinflation, as the OECD Economic Surveys 1981-1982 explains (p. 36): *“The 1981/82 Budget brought down on 18th August 1981 was designed primarily to constrain and then reduce the increasing inflationary pressures in the economy.”* During 1982-84, fiscal policy eased in response to short-term economic developments, namely, to support the recovery from the sharp recession which started in late

1981 (OECD Economic Surveys 1982-1983, p.7, p. 64, OECD Economic Surveys 1983-1984, p. 39, and OECD Economic Surveys 1984/1985, p. 29).

- Notes on 1989-1992. For 1989-1990, no fiscal consolidation measures motivated by deficit-reduction were introduced. There were some minor tax reductions and an increase in social security taxes. Following the 1990 recession, consolidation was again postponed given the priority of supporting the recovery: "Fiscal policy has actively supported economic recovery in recent years" (OECD Economic Surveys 1994, p. 37). Looking back at the early 1990s, the Budget Speech 1994-95 (p. 6) explains that "When an economy is in recession, it is entirely appropriate that budgetary policy be deployed to support the economy and the community. That involves a rising deficit."

AUSTRIA

Important remarks:

- The sources consulted for Austria are: IMF Recent Economic Developments, OECD Economic Surveys, Austrian Stability Programme (updates), IMF Staff Reports

Austria 1980

Fiscal consolidation measures were motivated by the desire to reduce the deficit in the medium term, as the 1979 IMF Recent Economic Developments explains (p. 28): "*With the 1980 budget the authorities announced their aim to lower the deficit in the medium term to some 2½ percent of GDP, in order to increase the scope for stimulative fiscal policies when warranted by future economic developments. Therefore, in the budget proposals for 1980 restrictive measures were incorporated aimed at a reduction of the federal deficit.*"

Fiscal consolidation measures totaled S 7.1 billion on the spending side and S 1.2 on the revenue side. The episode is mainly centered on spending cuts and, in particular, on cuts on transfers. Data about disaggregated components are taken from IMF, Recent Economic Developments, 1981.

Austria 1981

Fiscal consolidation was motivated by the government's medium-term deficit-reduction objective: "*...the Austrian authorities decided to continue consolidating the budget, and they projected the attainment of the medium-term target of a net deficit of 2½ per cent of GDP in the current fiscal year. It was agreed that consolidation measures at the present time were essential, if fiscal policy were to be ready to assume all expansionary stance at times of need.*" (1981 IMF Recent Economic Developments, p. 25)

The consolidation measures totaled S 5.6 of tax reductions and major pension expenditure cuts of S 11.9. The adjustment is part of the medium-term deficit reduction plan that also characterized the previous episode. Data on fiscal components are taken from IMF Recent Economic Developments 1982, p. 15-16.

Austria 1984

As explained in OECD Economic Surveys 1983-1984 (p. 23), the policy objective was that of reducing the deficit: "*Policy shifted again towards restriction in 1984, following the Federal Government's decision that, in view of the strong rise in deficits over the past years, important consolidation measures were required to ensure that growth of debt and debt-servicing obligations would not further narrow the scope for counter-cyclical fiscal policy in the future.*"

The revenue side measures amounted to S 19.5 billion with a large portion of the impact carried by a 2% VAT increase. The spending side measures totaled S 8.5 billion. Disaggregated data are taken from OECD Economic Survey, 1984-1985, p. 56-57.

Notes:

- *The other corporate tax relieves* entry refers to the following measures: abolition of the trading capital tax, reduction of the tax on corporate capital and increase in tax allowance for retained earnings for small scale enterprises

Austria 1996

Fiscal consolidation was motivated by deficit reduction and achieving the Maastricht deficit criteria for participation in EMU, as the 1997 IMF Staff Report explains (p. 4): *“With first-round participation in EMU the top economic priority since EU membership in 1995, the federal government agreed with the social partners and the lower levels of government on a phased two-year consolidation package to reduce the structural deficit.”*

A large consolidation plan was introduced, motivated by the necessity to meet the criteria fixed by the Maastricht Treaty in order to enter the EMU. The plan involved tax cuts of S 22 billion in 1996 and S 17.7 billion in 1997, while the spending measures amounted to S 38.2 billion in 1996 and S 22.1 billion in 1997. Data about the fiscal components of the plan are taken from IMF Staff Reports 1997 (p.13).

Austria 2001

As stated in 2001 IMF Staff Report explains (p. 9), the consolidation efforts were directed towards deficit reduction: *“Faced with strong criticism from the EU and international institutions over the unambitious March 2000 update of their Stability Program, the authorities prepared a revised Stability Program that places greater emphasis on fiscal consolidation and targets reaching general government balance by 2002 and maintaining it thereafter.”*

A two-year consolidation plan was introduced with the aim of reducing budget deficit and facing the rising skepticism of international institutions. The consolidation is a two year plan based both on spending reductions and tax hikes. The revenue side measures totaled S 26.8 billion in 2001 and S - 0.5 billion in 2002, while spending side measures totaled S 6.6 billion in 2001 and S 32.7 billion in 2002. Data about components are from the Austria Stability Program 2001 (p. 10-11).

Notes:

- Notice that in line with Devries et al. (2011), while calculating the spending side measures for 2002 we ruled out the interest on debt that amounted to S 3 billion.

Austria 2011

“The BVA for 2011 is part of a comprehensive multi-annual consolidation plan which was designed in autumn 2010”. (Austrian Stability Programme for the period 2010-2014. p. 15). The plan foresees spending savings of €0.89 billion for 2011, €0.5 billion for 2012 and lesser savings in 2013 and 2014, mainly consisting in cuts to family allowances, reduction in pension expenditure, state aid to enterprises and administrative costs. Moreover, both direct and indirect taxes increased for a total of about €1.2 billion in 2011, €0.6 billion in 2012 and nearly €0.2 billion in both 2013 and 2014 (Austrian Stability Programme for the period 2010 to 2014, pp. 16-17). The plan also included the extension of some special priority funds (universities, schools, R&D, thermal insulation and structural health funds) for €0.5 billion in 2011 and a total €0.7 by 2014. We subtract the impact of this

measures that can be considered as motivated by long run considerations. Data taken from the Austrian Stability Programme Update for the period 2010 to 2014 (April 2011), pp. 16-17.

Notes:

- Note on 2009 and 2010. No consolidation in 2009 and 2010. “In light of the weak economic environment in 2009, the Federal Government aims at securing economic growth and employment. The good budgetary starting position of the year 2008 allowed for large volume economic and employment stimulus packages as well as a tax reform, leading to a financial relief for all wage and personal income tax payers and families. These measures have aimed at stimulating purchasing power and aggregate demand, especially in the years 2009 and 2010, and continue to contribute to the European Economic Recovery Plan”. (Austrian Stability Programme for the period 2009 to 2013, p. 13)
- We excluded savings on interests and “Measures on the revenue side” that are further specified in the table at p. 17.

Austria 2012

“The Federal Government is committed to follow the budgetary policy recommendations in the context of the Excessive Deficit Procedure, the reformed Stability and Growth Pact (SGP) and the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG). With a view to reducing the budget deficit and the public debt ratio, ensuring room for maneuver for Austria and its public finances in the future, improving the quality of budget structures and achieving the targets set at the European level, the Federal Government has approved a comprehensive consolidation package, including reforms in the field of pensions, health, subsidies and administration, as well as socially balanced measures on the revenue side and the closure of tax loopholes. Some measures have already come into force on 1 April 2012, and the National Parliament has already approved a large part of the stability package” (Austrian Stability Programme Update for the period 2011 to 2016). The package comprised a series of measure both on the expenditure (Pension and unemployment insurance system, subsidies, public administration, health care) and on the revenue (introduction of a “solidarity fee” paid by high income individuals, change to business group taxation, imposition of a tax on financial transactions starting from 2014 and some changes in private savings taxations and VAT) side. The foreseen budgetary impact of expenditure measures was €0.52 billion in 2012, summing up to €5.64 billion by 2016 (total for years 2012 – 2016), and higher revenues of around €1 billion were expected in 2012, totaling €2.07 by 2016. In addition the plan launched in 2011 to strengthen Austrian future growth potential was extended up to 2016 and additional funds for education were announced to be implemented in 2013. Data taken from Austrian Stability Programme Update for the period 2011 to 2016 (pp. 21-23).

Notes:

- In our calculations we excluded savings on interest.

Austria 2014

“The Federal Government pursues a long-term and stability oriented fiscal and economic policy with the objective of attaining sustainable economic growth and a high level of employment [...] All levels of the Federal Government as well as States, Municipalities, and the Social Security System are obliged to achieve structurally balanced public budgets and to overcome permanently the chronic divergence between receipts and expenditures. In early 2012 a comprehensive consolidation and growth program called Stability Package 2012 was approved with reforms in the areas of pensions, health care, subsidies, and public administration. As the economic environment has been deteriorating since then (due to lower growth rates and necessary measures in the area of nationalized banks), additional measures to consolidate were approved.” (Austria Stability Programme, Update for the period 2013 to 2018, p. 9). The new measures undertaken were mostly on the revenue side. A set of direct tax measures was approved in early 2014, including a reform of

the tax system for limited liability companies. Taxes on tobacco, alcoholic beverages and vehicles were also increased (p. 34). In addition, the Austrian government expected to collect €0.5 billion from the application of the European tax on financial transactions whose application was originally planned for 2014 and then, at the beginning of the year, postponed to 2016 (see the notes). Finally, the effort to stimulate long-run growth was renovated, introducing new expansionary measures (mainly for Education, R&D and infrastructures) to be implemented along with the ones already announced in 2012. The measures on the revenue side total € 0.84 for the five years of implementation, while the spending measures sum up to €-0.54. Data taken from Austria Stability Programme Update for the period 2013 to 2018, p. 34-68.

Notes:

- To reflect the change in the European tax on financial transactions implementation, in our time-framework we register an unexpected €-500 in 2014 (due to the cancelled implementation) and introduce an announcement of €500 for 2016.

Final notes:

- Notes on 1978-1979. Fiscal tightening occurred in 1978, but the main motivation was restraining demand in response to a large and growing trade deficit, as the 1978 IMF Staff Report explains (p. 7): “as the trade deficit grew in the course of 1977 and it became clear that the underlying causes were of a fundamental nature, a reorientation of policies took place.” As the 1979 IMF Staff Report explains (p. 1): “In the second half of 1977, the authorities adopted a number of restrictive fiscal and monetary measures to curb domestic demand, in particular for expensive imported consumer goods such as cars”. The 1979 IMF Recent Economic Developments reports that the main fiscal policy objective in 1978 was reducing the external imbalance (p. 28): “the position of the current account of the balance of payments, which had been the main reason for the restrictive fiscal action undertaken in 1978, had improved considerably during the years 1978 and 1979.” In 1979, fiscal consolidation was primarily motivated by deficit reduction, as the 1981 IMF Recent Economic Developments explains (p. 22): “The authorities were particularly worried about the rate of increase of the debt service. Consolidation efforts at the present would increase the room for maneuver later on” (p. 22). The budgetary impact of the consolidation measures was S 6 billion, of which S 3 billion consisted of tax hikes and spending cuts, and the remainder reflected statistical operations (p. 32). However, the S 3 billion in tax hikes and spending cuts were more than offset by a tax reform that became effective on January 1st with a budgetary cost of S 4.5 billion in 1979 (OECD Economic Surveys 1978, p. 46).
- Note on 2000. Although tax hikes and spending cuts motivated by deficit reduction were implemented in 2000 based on the March Stability Program (2000 IMF Staff Report, p. 13) and the June tax package (OECD Economic Surveys 2000/2001, p. 46), they were more than offset by the cost of tax reform (1999 IMF Staff Report, p. 28) which was motivated by long-run considerations.

BELGIUM

Important remarks:

- The sources consulted for Belgium are: IMF Recent Economic Developments, IMF Staff Reports, OECD Economic Surveys, “Le Soir”, Ministry of Finance documents.

Belgium 1982

Fiscal consolidation measures implemented in 1982 consisted of spending cuts totaling BF 69 billion. As Devries et al. (2011) states, this plan is part of a multi-year program of fiscal consolidation announced by the government following the November 1981 election aimed at reducing the fiscal deficit to 7 percent of GNP by 1985 (1981/1982 OECD Economic Surveys, p. 21). As the 1983 IMF Recent Economic Developments (p. 29) reports, “*The 1982 budget was drafted with this medium term objective in mind.*” However, since in the IMF and OECD reports we have never found clear budget indications about fiscal plans for future years, we code all the plans until 1985 as unexpected. Data taken from IMF Recent Economic Developments 1982 p.22-25.

Belgium 1983

According to Devries et al. (2011), fiscal consolidation continued 1983, motivated by the multi-year deficit-reduction plan initiated in 1982. On January 1, 1983, the standard VAT rate rose from 17 to 19 percent with estimated savings of BF 15 billion, or about 0.40 percent of GDP (1983 OECD Economic Surveys, p. 58). In addition, the government introduced supplementary measures in March amounting to BF 50 billion (p. 22), of which BF 41 billion corresponded to expenditure cuts and the remainder corresponding to revenue measures. Data about the measure decomposition are from 1983 OECD Economic Survey, p. 58 and IMF Recent Economic Developments 1983-86.

Notes:

- Due to the inability to pin down the exact incidents of spending cuts, we attribute 1/3 to the cut in government consumption and 2/3 to the cut in government transfers.
- This is a year in which Devries et al. (2011) only take into account the March 1983 'correction measures' but ignored the budget decided by October 1982. In particular Devries did not take into account "Expenditure cuts made mainly in the field of social security, and by halving the partial budgetization of employers' social security contributions ("Operation Maribel", implemented in July 1981, with a cost to firms of some BF 15 billion in terms of higher nonwage labor costs". IMF Recent Economic Developments 1983).

Belgium 1984

According to Devries et al. (2011), fiscal consolidation in 1984 was motivated by a new deficit-reduction program for 1984-1987 initiated in March 1984, as the 1984 IMF Recent Economic Developments (p. 34) explains: "*the awareness that the borrowing requirement was approaching a self-perpetuating level through the 'snowball effect' on interest payments, induced the authorities in March 1984 to adopt a three-year fiscal adjustment program.*" The March 1984 fiscal consolidation measures had an impact in 1984 on taxes and non-interest spending estimated at BF 13.4 billion and BF 19.7 billion, respectively (p. 47). In 1985, the March 1984 program generated additional savings (over those achieved in 1984) of BF 36.6 billion in higher taxes and BF 44.6 billion in lower spending (p. 47). For details on components see table 20, p.47 of 1984 IMF Recent Economic Developments.

Notes:

- Devries et al. (2011) takes into account BF 0.2 billion from special levy on public credit institutions while computing the measures for 1985. However, these kinds of financial transactions are excluded from this analysis.

Belgium 1986

At the end of the first half of 1986 a new corrective programme (the "Saint Anne" or "Val Duchesse" Plan) was introduced having as its scope the deficit reduction: "*An important consideration in the Board discussion in 1986 was the announcement by the Belgian Government in May of that year of a fiscal program designed to lower the deficit of the Treasury by three percentage points to 8 percent of GDP in 1987*" (1987 IMF Staff Report, p. 1). The aim of the new plan was to reduce the net Treasury borrowing requirement by almost BF 108 billion in 1987. (OECD 1988 p.62). According to our calculations, of these BF 108 billion, tax hikes amounted to BF 5.6 billion, while expenditure cuts were BF 102 billion.

Notes:

- These estimates differ from the ones computed by Devries et al. (2011). Indeed, Devries et al. (2011) states that the program consists in BF 130 billion in expenditure cuts only. This is because in IMF Staff report (p.2) the program is said to consist mainly of expenditure cuts. Hence, the aggregate of 130 billion for the entire measure is thought to consist fully of expenditure cuts. However, with a more detailed look into Table 16 of IMF Recent Economic

Developments 1987, it is clear that the program contained a few tax measures that we have taken into account. Moreover, we excluded some rescheduling of interest payments.

- We take as a reference Table 16 and 22 of IMF Recent Economic Developments 1987, which gives a clear estimate of the cumulative impact of Saint-Anna Plan for 1987 and allow us to disentangle the single components of the policies. The single components are neat out from the impact of the program already implemented in 1986. In order to do so we had to subtract the non interest expenditure savings already implemented in 1986 and represented in Table 16. Unfortunately, this computation was not possible to apply to every single expenditure component because table 16 presents the impact of the aggregated components for 1986 and 1987, while table 22 only presents details of the single components for the cumulated Plan in 1987. In order to compute our results, we assume that the shares of the components of the cumulated effect was the same for the year 1987, neat out of the aggregated effects anticipated in 1986. Indeed, “the enabling legislation for the Saint-Anna measures was only put in place over the course of the second half of the year, the measures were expected to result in savings equivalent to BF 52 billion in 1986, with a further BF 10.5 billion to come from the accelerated implementation of other measures under the program.” p.34.

Belgium 1987

According to Devries et al. (2011), the Government had reviewed te execution of the 86’ program in February 1987 in order to reach the targeted deficit, and implemented additional expenditure cuts in 1987 worth BF 15 billion to reach the targeted deficit (1987 IMF Staff Report, p. 2, 5).

Notes:

- We consider only 15 out of 20 of the new spending cuts that are not yet classified because it is written that three fourth of the 20 are spending cuts and the reminder comes from non-tax receipts (i.e. probably privatizations and the like) that we usually exclude from our analysis.

Belgium 1990

According to Devries et al. (2011), fiscal consolidation was motivated by the government’s medium-term strategy, which, as the 1989 IMF Staff Report (p. 4) explains, had as its main objective “*the breaking of the snowball effect—the rise in the debt ratio engendered by the interaction of the deficit, indebtedness, and interest payments... which drastically reduced budgetary flexibility and made the budget unacceptably vulnerable to external interest rate shocks.*” Revenue measures together generated BF 25 billion and spending measures totaled BF 6 billion. However, we take out from the analysis the contribution of BF 5 billion from the central bank, the lottery and telephone company. Measure decomposition is taken from 1990/1991 OECD Economic Surveys, p. 50.

Notes:

- Note that on the spending side, transfers to the social-security system were chopped by BF 10 billion. However Devries et al. do not take this into account may because these savings were offset by extra spending “Nearly BF 10 billion worth of new spending initiatives were announced, mainly for social-security expenditure, but also with some extra funding for R&D and public investment”.

Belgium 1992

According to Devries et al. (2011) and the 1992 IMF Recent Economic Developments Report (p.6), the March 1992 *Budget* introduced a package of fiscal consolidation measures motivated by deficit reduction. The objective of deficit reduction was formalized in June in the government’s “Convergence Plan” for reaching a budget deficit-to-GDP ratio of 3 percent in 1996 (OECD Economic Surveys 1994, p. 48). Evidence that fiscal tightening occurred because of concerns regarding the budget deficit and not because policymakers believed the economy was overheating is clear from the National Bank of Belgium Annual Report 1992 (p. 17): “*The reduction of the public deficit is an urgent matter. This necessity would make it derisory, in Belgium, to adopt any policy of restimulating demand by resorting to the budgetary instrument, or to delay the rehabilitation effort*”

in any way. This is the spirit in which the multi-annual so-called ‘convergence’ plan prepared by the Government during the summer of 1992 and since approved by the EC Council of Ministers must be examined.”

The budgetary impact of the tax hikes and spending cuts amounted to BF 74 billion and BF 59.5 billion in 1992 and BF 3.5 billion and BF 30.25 billion in 1993 respectively. Many of the measures introduced for year 1992 both on the tax and the spending side were temporary (p. 6), implying an opposite budgetary impact in the year 1993.

Notes:

- To reflect the change in the European tax on financial transactions implementation, in our time-framework we register an unexpected €-500 in 2014 (due to the cancelled implementation) and introduce an announcement of €500 for 2016.

Belgium 1993

According to Devries et al. (2011), as in 1992, fiscal consolidation was intended to keep the deficit in line with the multi-year Convergence Plan motivated by the prospect of EMU accession. In 1993 the measures were adopted in several periods. In October 1992 revenue measures worth BF12 billion for 1993 were introduced. Then, at the time of the budget control exercise in April 1993, the authorities introduced a sizable additional deficit-reduction package with a full-year budgetary impact estimated by the 1993 IMF Recent Economic Developments (p. 10) at BF 105 billion. New receipts amounted to BF 75 billion (of which BF 15 billion consisted in asset sales, not considered in this analysis) and new spending cuts amounted to BF 30 billion. Since many of the measures did not become effective until July 1, however, the budgetary impact in 1993 amounted to about 30 percent of the full-year effect (OECD Economic Surveys 1994, p. 51). Thus, the effective plan consisted of tax and spending measures totaling BF 39 billion for year 1993 and BF 63 billion for 1994. Data were taken from IMFRED 1992 p.8, IMF RED 1994 p.10, OECD 1994 p.50 and 92.

Notes:

- Notice that Devries et al. (2011) has slightly different estimates because they roughly compute the policy maneuver to be three-quarters due to taxes and one quarter due to spending, as reported in IMF 1997 Recent Economic Developments p.10. However, we take as a reference the estimates made by the 1994 OECD Economic Survey p.50 because more precise.

Belgium 1994

The motivation for fiscal consolidation in 1994 was deficit reduction, as the 1994 OECD Economic Surveys (p. 46) reports: *“The primary objective of budgetary policy is medium-term fiscal consolidation in order to achieve the Maastricht targets. This approach was formalized in the multi-annual ‘Convergence Plan’ that the Government presented in June 1992. It set annual targets for the progressive reduction of the general government deficit to 3 percent of GDP in 1996.”* Additional measures were introduced for the total of BF 30 billion spending cuts, which consisted of public sector subsidies and spending cuts. Data coming from OECD 1994, p.51.

Belgium 1996

Fiscal consolidation in 1996 was motivated, as in previous years, by meeting the Maastricht criteria. Also, as the 1996 IMF Staff Report explains (p. 24): *“the authorities confirmed that they are maintaining their objective of achieving a primary surplus in excess of 6 percent of GDP over the next few years, given the need to secure a continuing decline in the public debt ratio and to prepare*

for longer-term demographic pressures on public expenditure.” A large package of various measures both were introduced for the total amount of 103.17 BF billion in 1994 and -39.68 BF billion. Data retrieved from IMF recent economic developments 1996 p.11.

Notes:

- According to IMF recent economic developments 1996 (p.11), the package implemented in this year includes one-off measures amounting to about 0.5 percent of GDP. As we could not identify which measures had a one-off impact, we equally split them between tax and spending, following Devries et al.

Belgium 1997

Fiscal consolidation in 1997 was, as in previous years, motivated by debt reduction and meeting the Maastricht criteria, as the 1997 OECD Economic Surveys (p. 44) explains: *“The stated aim of the Government is to reduce the general government deficit to less than 3 percent of GDP in 1997 and set the debt-to-GDP ratio on a firmly declining trend.”* According to IMF recent economic developments 1996 p.13-14, the 1997 budget, presented in early October 1996, includes a new package of corrective measures estimated by the authorities to represent BF 73 billion. The 1997 saving effort is split evenly between spending cuts and revenue increases.

Notes:

- The amount is smaller than in Devries et al. because they forget to subtract the expiration of the one-off measures they mentioned in the entry for 1996.

Belgium 2010

“On 2 December 2009, for the first time since the start of Economic and Monetary Union, Belgium was subjected to an excessive deficit procedure, in common with 22 other Member States at present. In that context, the European Council of 2 December 2009 recommended that the Belgian government should put an end to the excessive deficit procedure in 2012 at the latest by making a structural effort averaging 0.75 % of GDP per annum. The European Council also advocated the earliest possible implementation of the measures laid down in the 2010/2011 multi-annual budget. In January 2010, Belgium submitted a stability programme under which the excessive deficit procedure would end in 2012 and public finances would be restored to balance in 2015” (Belgian Stability Programme 2011-2014, p.9). Measures undertaken to face the excessive growth of deficit are outlined in the Belgian Stability Programme 2009-2012. At the federal government level, savings of almost €1 billion were planned for 2010 and €0.287 for 2011 (Belgian Stability Programme 2009-2012, Table 17, p. 37), mainly consisting in reduction of health care and social security expenditure and cuts to personnel and other primary expenses. On the revenue side, corporations and environment related taxes were increased and a special contribution was demanded to the nuclear energy and financial sector. These measures along with an increased effort to combat tax evasion, were expected to lead €1.395 billion in 2010 and additional €1.027 in 2011. Regions as well contributed to the deficit reduction effort and in particular Flanders put in place an expenditure restraint totaling €1.258 billion in 2010. The total of measures introduced for year 2010 was €3.652 billion, including spending cuts for €2.257 billion and revenue increase of €1.395 billion while the 2011 measures amounted to €1.31 billion consisting mostly of revenue side increase.

Notes:

- Note on 2009: “According to the provisional figures, the balance for the public administrations should post a deficit of 5.9% of GDP in 2009, the highest deficit since 1993 at the time of the crisis of the European Monetary System. For the first time since the inception of the European economic and monetary Union, therefore, Belgium has exceeded the threshold of 3% of GDP authorized by the Stability and Growth Pact. However, as the Ecofin Council pointed out in its recommendations to Belgium, this situation is the result of “special” circumstances. In particular, the

financial crisis had a dramatic effect on economic activity, thus weighing heavily on Belgium's public finances, by way of the cyclical component on the one hand and by way of the structural component associated notably with the stimulus plan on the other, as recommended by the European Commission in October 2008" (Belgian Stability Programme, 2009-2012). No measures of consolidation were taken.

- The federal government also committed to propose by mid-year additional measures of consolidation, such as the reform of pension system for civil servants. However, since the programme does not provide more details, it is impossible to assess the budgetary impact of these initiatives. At the same time a number of anti-crisis measures introduced in 2009 were extended and new expansionary initiatives were put in place (p. 37). However we don't take these into account since they were motivated by cyclical rather than long term justifications.
- The document also reports measures undertaken by regions other than Flanders. However we don't take them into account because they seem non budgetary or not motivated by deficit reduction.

Belgium 2011

"At federal level, despite its caretaker status, the government decided to take the necessary measures to comply with the European requirements by placing the emphasis partly on expenditure control and partly on optimizing the collection of public revenues and stepping up the control of social security fraud and tax evasion." (Belgian Stability Programme 2011-2014, p. 24). The federal government approved for 2011 a supplementary effort on the expenditure side of €0.9 billion (mainly health care and anti-social security fraud measures) and on the revenue side of around €0.77 billion (abolition of banking secrecy, regularization of evaded taxes, court settlements etc.)

Notes:

- From the June 2010 general election, a very fragmented parliamentary situation emerged, making really hard to find an agreement for the government formation. A proper government was named only in December 2011.
- A number of measures were also undertaken by regional governments. However we don't take them into account because they seem related to the economic cycle (see Belgian Stability Programme 2011-2014, pp. 28, 30 and 33).

Belgium 2012

"Belgium is committed to limiting the general government deficit to 2.8% of GDP in 2012. [...] In December 2011 the federal government drew up the initial budget for 2012 in a multiannual perspective covering the period 2012-2014. The guiding principle behind this initial budget is the April 2011 stability programme for 2011-2014. The federal government was careful to adhere to the path which that programme proposes. [...] The measures taken under the initial budget can be broken down into those relating to expenditure, revenue and other factors. Altogether, these measures enable Entity I to achieve the wished deficit, such as proposed by the High Council of Finance" (Belgian Stability Programme 2012-2015, pp. 21-22). Measures contained in the 2012 budget are summarized in Table 10 (p. 22) and listed in pp. 83-84. Considering all the revenue increasing and expenditure reducing measures and adding some relevant initiatives listed under others, on the spending side the budget envisaged a consolidation of €6.01 billion in 2012, €2 billion in 2013 and €2.33 in 2014 and on the revenue side €3.23 billion in 2012, €0.42 billion in 2013 and €0.61 billion in 2014.

Notes:

- The Flemish community also introduced some new initiatives to reduce deficit but we don't consider them since they were off-set by higher spending to stimulate economy (p. 39). In the Brussels-Capital Region an expenditure increase was projected to stimulate job-creation, but this seems to be motivated by cyclical considerations (p. 42).

Belgium 2013

"During the November 2011 negotiations concerning the coalition agreement, a multi-annual budget plan for 2012-2014 was drawn up. On the basis of the growth forecasts at that time, this plan assumed that the fiscal deficit would be cut to 2.8% of GDP in 2012, with a structural balance being achieved

in 2015. [...] To that end, a package of measures was approved at the level of federal government and social security [...]. The key elements of this multi-annual plan were presented in the stability programme submitted last year. The measures described below, taken in connection with the initial budget and the 2013 budget review, are additional to the effects of the multi-annual plan” (Belgian Stability Programme 2013-2016, p. 34). The 2013 initial budget included initiatives for 2013 on the spending (€1.410 billion) and on the revenue side (€1.1) plus some miscellaneous measures raising roughly €0.8 billion additional revenues. Other initiatives were undertaken during the revision of the budget, in March 2013, leading to additional spending cuts of €0.523 billion (personnel and social security) and higher revenues for €0.364 billion (tobacco duty, registration fees). Thus, the measures introduced in 2013 amounted to €2.14 billion on the spending side and €2.04 billion on the revenue side.

Notes:

- We excluded revenues coming from the sale of government assets (e.g., auction of 800 MHz)
- The Belgian Stability Programme also reports that regional governments undertook some measures during the year, but we don't take them into account because they were motivated by the worsening of economic conditions (as in the case of Walloon Region and the French Community) or were offset but new initiatives (as in the case of Flemish Community).

CANADA

Important remarks:

- Canadian Fiscal Year runs from April to March. Information about the Budget Process (for summary: <http://www.budget.gc.ca/2010/budproc/budproc-eng.html>).
- The sources consulted for Canada are: IMF Recent Economic Developments, OECD Economic Surveys, Budget documents, Fiscal Plans

Canada 1983

As stated in IMF Recent Economic Developments 1984, “*The budget that was presented in April 1983 aimed at providing support to the recovery while ensuring progress in reducing federal deficits over the medium term.*”

The April 1983 Budget introduced tax hikes and tax credits cuts motivated by deficit reduction with a budgetary impact of C\$ 0.26 billion in 1983, C\$ 0.74 billion in 1984, C\$ 1.49 billion in 1985, C\$ 1.02 in 1986 and C\$ 0.2 billion in 1987, which included hikes in personal income and consumption taxes (Fiscal Plan p.27-28, only positive values).

Notes:

- Devries report an impact of 1.2 billion for year 1984, but they did not compute the change compared to the measures supposed to have impact in 1983.

Canada 1985

As Devries et al. (2011) explains, Fiscal Plan published together with the May 1985 Budget makes it clear that reducing a large budget deficit was the principal motivation for fiscal consolidation. It warns of the dangerous “*vicious circle of deficits, growing debt and ever-increasing debt carrying charges*” (p. 1) and that “*To ignore the reality of the current fiscal situation would be to severely endanger the economic future of this country*” (p. 2). It therefore announces that “*This budget represents a major step towards controlling the growth of the federal public debt*” (p. 2).

According to May 1985 Budget, the consolidation program consisted of a multiyear spending-centered measures amounting to C\$ 3.17 billion in 1985, C\$ 3.84 billion in 1986, C\$ 1.77 billion in 1987 and C\$ 1.12 billion for each of the following three years.

Notes:

- In the calculation of government expenditures Energy, Mines and Resources were excluded since, according to Devries, they were motivated by cyclical considerations. Among the Management savings only those that had an accrual impact are taken into account. Changes are assumed to be equal among missing fiscal years.

Canada 1986

The 1986 Budget makes it clear that the motivation for fiscal consolidation in 1986 was reducing a large inherited budget deficit (pp. iii-iv): *“When this government came to power, the state of the nation’s finances had been allowed to deteriorate to an alarming degree. An unbroken string of deficits beginning in 1970-71 had resulted in a massive accumulation of debt... As a result of previous initiatives, and those I am announcing today, I expect that the deficit will decline a further \$4.8 billion next fiscal year and another \$3.5 billion in 1987-88.”*

As stated in the fiscal Plan 1986 p.42 and Budget 1986 p.26, another four year measure package was put in place, with consolidation amounts of C\$ 2.03 billion in 1986, C\$ 1.6 billion in 1987, C\$ 0.68 billion in 1988 and C\$ 0.12 billion in 1989 with the majority of measures coming from the revenue side, including the hikes the hikes in personal income and corporate taxes together with a 1% sales tax increase.

Canada 1987

Fiscal consolidation was again primarily motivated by deficit reduction, as discussed in the Budget Papers accompanying the 1987 Budget (p. 1): *“There are a number of key elements in the overall strategy for economic renewal but the most important is fiscal restraint and control of the national debt: deficits and growth of the debt must be reduced if we are to have an economic and financial environment that promotes private sector expansion and job creation... Substantial improvement in the fiscal situation has already been achieved, but further progress must be made.”*

No fiscal consolidation on the spending side was implemented this year. A Tax Reform was announced in June involving changes both in direct (lower tax rates but broadening the tax base) and indirect taxes (1987 IMF Staff Report, p. 12). According to Devries et al. the reform became effective starting from 1987. However the sources we consulted, in particular The White Paper Tax Reform 1987, report that the budgetary impact of the reform was from 1988 onwards. We decided to rely on this latter source and not to include the negative long run measures reported in Devries et al. for 1987.

Canada 1988

Fiscal consolidation in 1988 was motivated by the desire to reduce the budget deficit, as The Fiscal Plan accompanying the 1988 Budget explains (p. 5): *“With the fiscal plan presented in this budget, the government sets out a solid five-year fiscal track of significant deficit reduction and debt control, a fiscal outlook that stands in sharp contrast to the performance in the previous four years.”*

The February 1988 Budget introduced tax hikes totally consisting in an increase in the excise tax on gasoline, which resulted in revenue increases of C\$ 0.17 billion in 1988, C\$ 0.11 billion in 1989 and minor effect in 1990.

Notes:

- There were some other revenue measures but they had small budgetary impact. We excluded the impact of National Strategy on Child Care since there were additional changes of this policy after the budget release.

Canada 1989

Fiscal consolidation in 1989 was motivated by the need to reduce the budget deficit, as the Fiscal Plan of the 1989 Budget explains (p. 2): *“The principal objective of the fiscal strategy presented in this budget is to reduce the growth of debt through deficit reduction. Three key elements are combined to achieve the debt control objective: further expenditure restraint, additional revenue increases, and sustained economic growth.”*

The April 1989 Budget contained some measures that both reduced spending and increased revenues over the three year span with the major impact coming from the revenue side. Data taken from The Budget Papers, 27 April 1989, Table A-2 (p.8).

Notes:

- We excluded the impact of the Child Care bill since it was never implemented.

Canada 1990

Fiscal consolidation in 1990 was again motivated by debt reduction, as the 1990 Budget (p. 91) explains: *“Although substantial progress has been made, the task is not yet complete. The enormous build-up of debt over the last 15 years means that we are on a treadmill dominated by growth in public debt and debt servicing costs... Further fiscal action is required to hold to the fiscal framework set out in the April 1989 budget. Through the Expenditure Control Plan, the substantial expenditure actions taken in this budget reinforce the momentum of earlier measures and help to ensure that the goals of the April 1989 budget will be reached.”*

The consolidation was, as usual, a combination of new spending reduction measures introduced in the December 1989 *Update* and in the February 1990 Budget. The measures spanned over four years, netting to a consolidation effect of C\$ 4.12 billion. Data source: The Budget, February 1990, Table A.5.1 (p.135).

Notes:

- Budgetary impact for F.Y.s 1992-93 to 1994-95 are calculated assuming that the cuts were distributed evenly across these fiscal years. "Crown corporations and agencies" are not included since they consist in sales of state assets. "Enhanced collection of accounts receivable" and "acceleration of Bank of Canada remittances" are not included since they had no impact under accrual accounting.

Canada 1991

Fiscal consolidation in 1991 was clearly motivated by deficit and debt reduction and not because policymakers thought that the economy was overheating. Indeed, the government was aware that a recession had started and that *“Many Canadian have lost their jobs; many others have lost confidence in the economic future”* (1991 Budget Speech, p. 1). Despite the recession, the 1991 Budget Speech explained that *“Ours is not a plan for increased spending. That approach has been tried in the past and failed”* (p. 2). Instead, the Budget reinforced expenditure restraint to cut the deficit: *“We will put the government finances firmly on the course to a balanced budget... The Expenditure Control Plan announced in the 1990 budget will be extended. The government will legislate mandatory program*

spending limits... We will severely restrain the operations of government. Operating budgets will be frozen at current levels and the wages and salaries of Cabinet Ministers, Members of Parliament, all Order-in-Council appointments, and all federal public servants will be tightly restrained.” The aim of the spending cuts was to “*ensure that we achieve key fiscal goals in line with the plan set out in my 1989 and 1990 budgets: We will eliminate new federal borrowing in financial markets after 1993-94*” (p. 3).

New measures of spending restraint were introduced in the February 1991 Budget for the following four years. Measures amounted to nearly C\$ 1 billion for years 1991-1993 and C\$ 0.22 billion for 1994, while consisting in a variety of spending side measures, including transfers to regions and Operating Budget cuts.

Notes:

- Budgetary impact for F.Y.s 1993-94 to 1995-96 are calculated assuming that the cuts were distributed evenly across fiscal years. For details see "Canada's Green Plan" by Robert J. P. Gale.

Canada 1992

The fiscal consolidation initiated in 1991 continued in 1992 and the motivation was deficit reduction, as the February 1992 *Budget Speech* (p. 2) made clear: “*We will substantially reduce the deficit. Despite the economic slowdown, we will hold the deficit to \$31.4 billion in the 1991-92 fiscal year. We will reduce it by almost \$4 billion to \$27.5 billion 1992-93... We will cut spending by \$1 billion in 1992-93 and by \$7 billion over five years. These savings will be used to cut taxes.*” The *Budget Speech* also emphasized the economic benefits of deficit cuts (p. 4): “*Reducing the deficit is essential for sustained economic growth and prosperity. It is also an essential foundation for the confidence, at home and abroad, that will ensure a strong recovery.*”

In this year a reform of the tax credit system was introduced, entailing an increase in spending (transfers) (The Budget Papers, Table 3.8, p. 93). The planned consolidation amounts were negative for the first two years (C\$ -0.4 billion in 1992, C\$ -0.12 billion in 1993), while being positive for the next two years (C\$ 0.3 billion in 1994, C\$ 0.1 billion in 1995).

Canada 1993

Fiscal consolidation in 1993 was part of the government’s strategy motivated by deficit reduction, as the April 1993 Budget mentions: “*The December 1992 Statement represented an important step in addressing the deterioration in the fiscal situation.*”

In December 1992 new measures of fiscal consolidation on the spending side were announced in the Economic Statement and the April 1993 Budget (The Budget Plan, 23 April 1993 (p. 51)) contained some additional spending cuts. Measures were planned for the given year and five years ahead with total consolidation amount of C\$ 4.85 billion.

Notes:

- Budgetary impact for F.Y.s 1995-96 to 1996-97 are calculated assuming that cuts were distributed evenly across the two fiscal years.

Canada 1994

Fiscal consolidation in 1994 was again motivated by deficit reduction with explicit numerical deficit targets over the medium term, as the 1994 Budget emphasizes: “*the decisions presented in this budget set the deficit on a path to meeting the government’s deficit-to-GDP target of 3 percent in 1996-97.*”

The February 1994 Budget introduced a new plan of spending cuts and tax increases over a four year period with measures concentrated on the revenue side and netting out to nearly C\$ 9 billion.

Canada 1995

The 1995 Budget Speech (pp. 2-3) emphasizes that the consolidation measures introduced in the Budget were intended to “*restore the nation’s finances to health*” and emphasized the risks of not acting to reduce the deficit: “*The debt and deficit are not inventions of ideology. They are facts of arithmetic. The quicksand of compound interest is real. The last thing Canadians need is another lecture on the dangers of the deficit. The only thing Canadians want is clear action... Taking the next two fiscal years together, this budget delivers cumulative savings of \$15.6 billion, with spending cuts accounting for \$13.4 billion, more than 85 per cent of the total.*”

The planned measures spanned over four years with amounts of C\$ 3.61 billion for 1995, C\$ 2.95 billion for 1996, C\$ 1.72 billion for 1997 and C\$ 0.38 for 1998 (Budget Plan February 1995, p. 35, p.64).

Canada 1996

The 1996 Budget Speech makes it clear that the main motivation driving fiscal consolidation was deficit reduction, and it renews the commitment to achieving numeric deficit targets by cutting spending (p. 4): “*This budget is our third in a comprehensive and determined effort to restore fiscal health to this country... The attack on the deficit is irrevocable and irreversible. Let there be no doubt about that... We will hit the 3-percent deficit target. We will hit the 2-percent target announced last November. Indeed, we are announcing the actions today which will enable us to go beyond those targets, to keep us moving towards budget balance.*”

The 1996 budget introduced additional spending cuts of C\$ 0.056 billion (1996 Budget Plan, p. 18) but at the same time high priorities expenditures were raised of C\$ 0.160, in fiscal year 1996-97. In addition the 1997 Budget introduced some expansionary measures to promote long-run employment, which had an impact on 1996. The total of measures planned amounted to C\$ -0.65 billion for 1996, C\$ 0.58 billion for 1997 and C\$ 0.27 billion for year 1998.

Notes:

- According to 1996 Budget plan (table 1.4, p.19) in fiscal 1996 new tax measures were also introduced, for a total C\$ 0.07 billion.

Canada 1997

Fiscal consolidation continued in 1997, again guided by the government’s deficit-reduction strategy, as the February 1997 Budget Speech emphasizes (p. 3): “*This budget will show that our effort to restore health to the nation’s finances is very clearly on track, that we are well ahead of our target, and that we are staying the course of deficit reduction.*”

The 1997 Budget included some expansionary initiatives motivated by long run considerations, including increase in investment in education and innovation, reduction in taxes for small businesses and higher children allowances (The Budget Plan 1997, pp. 19, 100 and 120). The amounts of measures were C\$ -0.43 billion for 1997, C\$ -0.31 billion for 1998, C\$ -0.24 billion for 1999 and C\$ -0.06 billion for 2000.

Notes:

- Considering the data from the Budget Plan 1997, pp. 19, 100 and 120, in Table 4.1 at p. 100 we consider only the measures related to long-term job creation.

Canada 2010

Despite the need to implement recovery actions, Canadian government was committed to remain on track of deficit control, planning a program of consolidation measures for the following years: *“Allowing the temporary elements of the Action Plan to wind down, as scheduled, is the first step in the Government’s plan to return to balance over the medium term.[...] The second element of the Government’s plan to bring the budget back to balance is to put in place targeted measures to reduce the rate of growth of spending that will build over the medium term.[...] The third element of the Government’s plan to return the budget to balance is to undertake, continue with, and in some cases augment, a number of review processes aimed at reducing costs while improving efficiency”*(Budget 2010).

The government announces a plan of \$17.6 in savings measures over the following five years that is mostly based on spending cuts (Budget Plan 2010, p. 157). The savings measures are summarized in Table 4.1.1 of the Budget Plan 2010 (p. 164). We only included those measures that were part of the chapter “Plan to Return to Budget Balance” as will done for all of the following years. The total amounts of consolidation measures were C\$ 062 billion for 2010, C\$ 1.11 billion for 2011, C\$ 1.77 billion for 2012, C\$ 1.25 billion for 2013, C\$ 0.83 billion for 2014 and C\$ 0.19 billion for 2015.

Notes:

- We have some doubts on the Strategic Review Measures also in following years. It is not clear at all whether these measures are announced the previous year. Indeed, they are included in the Table as “2009 Review”, however, at p. 292 they say “Budget 2010 includes savings that reach \$287 million in 2012-13”. I have listed them among the measures introduced in the Budget 2010 since I see no real evidence of the fact that they come from 2009. The same holds for Strategic Review measures in the 2011 Budget.

Canada 2011

The initiative of deficit reduction planning and implementation started in 2010 was continuing in 2011: *“Budget 2011 builds on the actions taken in Budget 2010 by announcing the measures that could achieve an additional \$17.2 billion in savings over five years.”*(Budget March 2011)

Two Budgets are approved in the year. March 2011 Budget Plan introduces measures for a total of \$17.2 billion (p. 169). Details on the fiscal consolidation can be found in Table 5.1 (p. 172). For what concerns tax loopholes (which are the only tax measures among the fiscal consolidations measures listed in the “Plan to Reduce the Budget Balance”), in order to do the decomposition we looked at Table A3.1 in Annex 3 p. 240 selecting only the measures highlighted in the description provided at p. 170.

The second budget in June 2011 was issued in order to implement the measures included in the Government low-tax plan project approved by a referendum in May. There are no major changes in the measures intended to reduce the budget deficit (it can be easily seen since all of the changes implemented in June are written in blue on the June 2011 Budget). The totals of the consolidation measures were C\$ 0.33 billion for 2011, C\$ 1.28 billion for 2012, C\$ 1.64 billion for 2013, C\$ 1.84 billion for 2014, C\$ 0.44 billion for 2015 and C\$ -0.01 billion for 2016.

Notes:

- The only new measures included in the “Plan to Return to Budget Balance” of June 2011 Budget are mentioned in the paragraph “Integrity and Accountability”. However, since they account only for annual savings up to \$30 million by 2015-16 (p. 184) and we have no details on their time allocation we would neglect them.

Canada 2012

As seen from the 2012 Budget Plan, deficit reduction was still a priority of the Government: *“Responsible and sustainable fiscal management is a key element of the Government’s plan to create jobs and growth over the long term. Economic Action Plan 2012 reaffirms the Government’s commitment to returning to balanced budgets over the medium term and putting the debt-to-GDP ratio on a downward track.”*

The Budget introduced spending consolidation measures that were part of a program of “Responsible Spending” included in the Economic Action Plan 2012. In particular, the latter consisted of cuts in departmental spending that are described in details in Budget 2011 Annex 1 p. 257. In general, the program was designed to *“refocus government and programs by eliminating or reducing programs that can be delivered in other ways, for which demand is lower or which are no longer needed.; make it easier for Canadians and businesses to deal with their government by providing effective and efficient programs and services to Canadians at a lower cost [...]; modernize and reduce the back office by streamlining, consolidating and standardizing administrative functions and operations within and across organizations.”* (p. 258). The measures totaled C\$ 1.1 billion in 2012, C\$ 1.56 billion in 2013, C\$ 1.96 billion in 2014 and C\$ 0.52 billion in 2015.

Canada 2013

In 2013 a new fiscal consolidation plan was designed to further consolidate the fiscal stance continuing the effort started in 2010, as can be seen from the Budget Plan 2013: *“Together with measures taken since Budget 2010, this means the Government has announced savings that will reduce the deficit by more than \$15 billion in 2014–15 and beyond, resulting in cumulative savings of more than \$84 billion over the 2010–11 to 2017–18 period.”*

Measures in Economic Action Plan 2013 aimed at returning to budgetary balance will produce an additional \$500 million in savings in 2013–14, rising to \$2.3 billion in 2017–18 for a total of \$8.4 billion over the following five years. Details about the measures are included in Table 4.1.1. The total consolidation measures amounted to C\$ 0.41 billion in 2013, C\$ 0.9 billion in 2014, C\$ 0.57 billion in 2015, C\$ 0.2 billion in 2016, C\$ 0.13 billion in 2017 and C\$ 0.03 billion in 2018.

Canada 2014

As the 2014 Budget evidentiates, a large effort is put in the reduction of the deficit: *“The Government’s plan to return to balanced budgets will secure Canada’s future prosperity, creating job opportunities for Canadians and raising our standard of living. It is for this reason that the Government has made returning to budget balance the cornerstone of its Economic Action Plan.”*

In 2014 the consolidation package continued. The measure decomposition is presented in Table 4.1.1 p. 260 of the Budget Plan 2014. The totals of the measures are as follows: C\$ 2.46 billion for 2014, C\$ 1.05 billion for 2015, C\$ -0.51 billion for 2016, C\$ -1.16 billion for 2017, C\$ -0.36 billion for 2018 and C\$ -0.02 billion for 2019.

Notes:

- Since the Economic Action Plan 2014 approval took place on February 11, 2014, the measures prescribed to the fiscal year 2013-2014 are fully assigned to year 2014.

Final notes:

- Notes on 1978-1983. Fiscal consolidation occurred in 1978-1983, but was primarily motivated by restraining aggregate demand and reducing inflation. Therefore, we do not record these policy measures as fiscal consolidation motivated primarily by deficit-reduction and fiscal sustainability considerations. In 1978, the government cut spending, but the motivation was primarily to reduce inflation, as the Statement by the Honourable Jean Chretien Minister of Finance on August 24, 1978, made clear (p. 1): “The government believes that the example of discipline over its own spending will contribute to the continuing exercise of needed discipline in the community at large as price and wage controls are phased out. This will be a very great help in controlling inflation.” Similarly, the 1978 Budget Speech (p. 17) stated “this budget will make a significant contribution to the containment of our domestic costs in the post-control era.” An anti-inflation policy based on demand restraint also underlay the 1980 Budget, as the 1981 IMF Recent Economic Developments explains (p. 32): “On October 28, 1980 the Government presented to Parliament a budget which reaffirmed that demand policies must be geared toward a gradual reduction of inflation.” Similarly, as the 1982 IMF Recent Economic Developments explains (p. 34): “The budget presented in November 1981 reaffirmed the Government’s commitment to policies aimed at bringing down inflation. The budget speech stated that the control of the money supply by the Bank of Canada was an essential element in the strategy to fight inflation, but it had to be supported by greater fiscal restraint.” The 1982 Budget also aimed at reducing inflation, as the 1983 IMF Recent Economic Developments reports (p. 32): “In the budget introduced in June 1982 it was emphasized that a substantial reduction of inflation was necessary to achieve a lasting decline in interest rates, the restoration of substantial growth of output and productivity, and the solution of the country’s unemployment problem. Accordingly, the budget continued to stress the need for policies aimed at restraining the growth of demand.” A key anti-inflation measure was a government wage restraint policy known as the “6&5” program: “With a view to assisting the anti-inflationary effort, the June budget set a ceiling on wage increases in the federal sector of 6 percent in the year beginning July 1, 1982 and 5 percent in the following year” (1983 IMF Recent Economic Developments, p. 32). The program was implemented, and The Budget Speech of 1984 (p. 2) emphasized its results: “Canadians can be proud of our collective achievement in bringing inflation down from almost 12 percent in June 1982 to 4.5 percent at the end of last year. The government’s 6&5 Program has contributed substantially to this achievement. Restraint in federal wages and prices has helped to lead inflation down.”
- Note on 1998-99. The budgetary impact of deficit-reduction measures were offset by the budgetary cost of other initiatives with a long-term motivation, such as tax reform, in 1998-99. In particular, the 1998 Budget announced that “Over the next three years, \$7 billion in tax relief is being provided to Canadians” (1998 Budget in Brief, p. 6) and this was motivated by long-run considerations—restructuring the tax system—rather than by providing short-term fiscal stimulus, as the 1998 IMF Staff Report explains (16): “In considering how part of the fiscal dividend would be used for other purposes the authorities saw a particular need for restructuring the tax system.” Net of these other measures with a long-term motivation, there was no deficit-driven fiscal consolidation.
- For year 2009, Budget only contains endogenous measures intended to bounce back from the economic downturn that followed the crisis. “Budget 2009 will help Canada to meet the challenges of our times. It aims to protect our country from an immediate economic threat while providing the solutions we need to secure our long-term growth and prosperity” (Budget in Brief, 2009). The plan includes measures designed to strengthen the financial system, stimulate household spending and housing construction and support business and communities.

DENMARK

Important remarks:

- The sources consulted for Denmark are: IMF Recent Economic Developments, IMF Staff Reports, OECD Economic Surveys, Budget documents, National Reform and Convergence Programmes

Denmark 1982

According to IMF Recent Economic Developments 1984 (p. 39) and 1982 (p. 34), the consolidation measures amounted to DKr 0.5 billion worth negative tax expiration for year 1983, which was an anticipation of the measures taken in 1983.

Denmark 1983

Fiscal consolidation in 1983 was motivated by deficit reduction, as the 1984 IMF Recent Economic Developments makes clear (p. 39): *“the Government that came into office in September 1982 immediately adopted an economic policy program, inter alia, designed to stop and eventually reverse the upward trend in the public sector deficit. The main thrust of the 1983 budget was to improve the public sector balance by cutting expenditure mainly through incomes policy, while revenue measures included an introduction of taxes on pension funds and an increase in contributions to the social security system.”* The government intended the deficit to continue to fall over a number of years, as the 1983 IMF Staff Report reports (p. 7): *“As to the medium term, the Government intends to reduce the budget deficit year-by-year and to achieve approximate balance by the end of this decade.”*

Measures aimed at reducing the deficit were announced by the new government and approved by the parliament in October 1982 (OECD Economic Surveys 1983, p. 47). These measures were designed to have an effect in 1983 and 1984 and included spending cuts (DKr 9.5 billion in 1983 and DKr 6 billion in 1984) and tax increases (DKr 5 billion in 1983 (IMF Recent Economic Developments 1984, p. 40)).

Notes:

- The DKr 2.2 from the increase in employee contribution to unemployment insurance and in local income tax rates were computed as residual
- The temporary wealth tax of DKr 2.8 billion raised on pension and insurance funds was replaced by a real interest rate permanent tax introduced later in 1983 (IMF Recent Economic Developments 1985, p. 45)

Denmark 1984

Fiscal consolidation continued in 1984 motivated by deficit reduction as in 1983. In October 1983 the government proposed a new plan to cut deficit including spending and tax measures (IMF Recent Economic Developments 1984, pp.44-45). Political parties didn't support this plan and a compromise was reached in November reducing the measures' impact, now amounting to DKr 3.1 billion on the spending side and DKr 3.7 billion on the revenues side. However, because of disagreements on small saving measures, the bill was rejected by the parliament in December. Consequently the parliament was dissolved and elections were called in January 1984 (IMF Recent Economic Developments 1985, pp. 45-46). The new parliament approved the budget almost in the same form it was presented in December. An additional consolidation was announced by the new government in April consisting in additional spending cuts of DKr 1.1 billion and increased revenues of DKr 0.3 billion. Finally the settlement by taxpayers of underpayment of PAYE-taxes was deferred by one year (IMF Recent Economic Developments 1985, p. 48). This generated in 1985 extra temporary revenues of DKr 5 billion in 1985 and had a budgetary impact of DKr -5 in 1984.

Notes:

- The DKr 0.7 billion of contributions to the Fund of Labor Market Education were paid half by the employer and half by the employee (IMF Recent Economic Developments 1984, p. 44).
- The DKr 2.1 billion of contributions to sickness benefits were calculated on taxable income (IMF Recent Economic Developments 1984, p. 42).
- As Devries et al. (2011) did, we attribute all the DKr 5 billion impact in 1985 to savings in spending (with ½ attributed to government consumption and ½ attributed to transfers), since IMF Recent Economic Developments 1986 (p. 46) reports that in April the government agreed with the majority party to leave the total tax burden unchanged, even if a number of policy initiatives were taken.
- The DKr 1.1 billion of spending cuts implemented in the additional consolidation, including the extension of the suspension of automatic indexation until 1987 and a freeze of maximum unemployment benefits were equally split among government consumption and transfers.

Denmark 1994

In 1994, the consolidation consisted solely of “social security” measures. Presumably these measures consisted in increase in social security contributions as mentioned by IMF Staff Report 1995 and reported in The Danish Budget, Quarterly review (December 1994, p. 18). The increased is part of the 1994 Tax reform (The Danish Budget '95, p. 8), hence it should be considered announced. Therefore the measure amounted to DKr 0.4 billion for year 1995.

Denmark 1995

According to IMF Staff report 1995, after a year (1994) of fiscal stimulus, “*the focus of fiscal policy had now switched back to consolidation. Thus, in accordance with the original intentions of the strategy, a withdrawal of fiscal stimulus equivalent to 0.3 percent of GDP had been targeted for 1995.*” This was to be obtained mainly through social security contributions and a reduction in public investment” (p.11). According to The Danish Budget, Quarterly Review (December 1994, p. 7), the Budget Agreement for 1995 generated an improvement in the central government balance of DKr 3.9 billion with consolidation measure amounting to DKr 1.2 billion, taking effect the same year.

Notes:

- We classify the DKr -0.4 billion of higher expenditure in research, business policy, infrastructure and lower taxes proceeds as the change in spending, even if, clearly, this amount also includes a revenue component. The reason is that it still seems mainly consisting of spending measures.
- In the 1995 an improvement of government balance of DKr 2.5 billion was expected to come from the reorganization of state enterprises. For the purposes of our analysis we don't take into account these proceeds.

Denmark 2009

In spring 2009, government introduced a new tax reform (*Spring Package 2.0*). The *Spring Package 2.0* is a tax reform announced in March 2009 whose primary focus was “to increase labour supply and thereby strengthen longer-term growth prospects particularly through a lowering of marginal income taxes” (Denmark's Convergence Programme 2009, p. 56). It consisted in a reduction of taxes on labor income financed through other revenues enhancing initiatives (higher environmental taxes, higher taxes on unhealthy food, lower deductions and removing special arrangements for individual business sectors). The tax cuts were quickly implemented, “to support activity and employment in the short term” (p. 56), while the financing measure were implemented gradually in the following years.

Notes:

- We chose to attribute 1/3 of the financing elements of the Spring Package to the indirect tax bracket while 2/3 is attributed to the direct tax bracket.

Denmark 2010

After fiscal stimuli in 2009 and 2010, the government adopted a new consolidation package in May 2010 to be implemented from 2011 onward. “The CPs medium-term budgetary strategy aims at bringing the general government deficit below the 3% reference value by 2013, in line with the deadline set by the Council, and achieving the revised Medium Term Objective (MTO) of a structural budget deficit not bigger than 0.5% of GDP in 2015 and at least a structurally balanced budget by 2020.” (Assessment of the 2011 national reform programme and convergence programme for Denmark, p. 7). The package includes “a real-term freeze in public consumption, better control of

budgetary execution at the local level, a reduction in the unemployment benefit period and tax measures” (p.8). The total expected impact of the consolidation amounts to DKr 15 billion in 2011 (DKr 10 billion of spending cuts and DKr 5 billion of tax hikes) and DKr 11.65 billion for both 2012 and 2013 (with equal shares each year, attributing DKr 10 billion to spending cuts) (Table “Main Budgetary measures, p. 9).

Denmark 2012

As seen from OECD Economic Surveys 2012, the government was persistent in its desire to bring the deficit to lower levels: *“In its Budget Bill for 2012, the new government has announced some increases in public expenditures that would require raising taxes further to meet the EU commitment for 2013 (under the excessive deficit procedure) and its target to have a structural fiscal balance by 2020.”*

New tax elements were introduced in the 2012 Budget Bill (Assessment of the 2012 national reform programme and convergence programme for Denmark, p. 11) that were expected to generate a budgetary improvement of DKr 3.58 billion in 2012 and DKr 1.79 billion in 2013.

Notes:

- As Denmark's Convergence Programme 2012 (p. 12) reports, a special expansionary plan (Kickstart plan) was also implemented with the Fiscal Bill 2012. It consisted of energy and transports investments, that are said to be neutral for public finances (p. 7), housing subsidies and public investments. Since the latter mostly have a one-off nature, we believe that they are linked to short rather than long run objectives and hence, as potentially endogenous, we don't take them into account.

Final notes:

- Notes on 1978-1979. While some fiscal tightening occurred during 1978-1979, the primary motivation was restraining domestic demand to reduce inflation. Therefore, we do not record these policy measures as fiscal consolidation motivated primarily by deficit-reduction and fiscal sustainability considerations. As the 1979 IMF Staff Report (p. 3) explains: “The adjustment strategy adopted since the second half of 1976 relies heavily on incomes policy to influence the growth of domestic costs and tax policy to control the growth of private domestic demand, with the policies reinforcing each other.” However, the savings achieved based on these measures were offset by expansionary measures aimed at reducing unemployment (1979 IMF Staff Report, p. 3): “Unfortunately these effects have been offset by increase expenditure to improve social services, to reduce costs of employers, and particularly, since late 1977, to create employment.”
- Note on 1986. Although fiscal policy tightened in 1986, the principal motivation was restraining domestic demand to reduce overheating. Therefore, we do not record these policy measures as fiscal consolidation motivated primarily by deficit-reduction and fiscal sustainability considerations. As the 1987 IMF Staff Report explains (p. 2): “In order to curb demand pressures and reduce overheating in certain sectors of industry, the Danish authorities introduced a package of fiscal measures in December 1985. This package included increased energy taxes and cutbacks in public works, as well as stepped up education and training to promote Labor market flexibility and reduce bottlenecks. Despite these measures, domestic demand continued to grow rapidly and pressures on the external accounts mounted. The authorities responded by introducing another package of fiscal measures in mid-March 1986, consisting mainly of increased energy taxes. The two packages together were estimated to strengthen the budget by some 2 1/2 percent of GDP, and to move the public sector into significant surplus. The authorities expected that these measures would hold the growth of domestic demand to less than 3 percent in 1986, and reduce the external current account deficit to about 2 3/4 percent of GDP...” In addition, “Concern over the strength of domestic demand and the widening external deficit led the authorities to introduce yet another fiscal package in October 1986, the third within a year. The main measure was a 20 percent tax on net interest payments on consumer credit, aimed at discouraging borrowing for private consumption” (p. 6). The OECD Economic Surveys 1986/1987 refers to this October package as follows (p. 9): “large policy package aimed at damping private consumption in 1986—the so-called ‘potato diet’ introduced in October.” Overall, therefore, since fiscal tightening in 1986 was primarily motivated by the need to restrain domestic demand, we do not record it as a fiscal consolidation motivated by deficit reduction.
- Note on 2009 and 2010. “Denmark appears to be among the OECD countries that have eased fiscal policy the most in 2009 and 2010 in order to support growth and employment. The fiscal stimulus over the two years has a budget

impact of around 60 billion DKK in 2010” (Denmark's Convergence Programme 2009, p. 15). No measures of fiscal consolidation were adopted in these years. Also: “Fiscal policy was eased significantly in 2009 and 2010 in light of the financial crisis. The fiscal measures in 2009 and 2010 amount to approx. 3¼ per cent of GDP (measured by the direct revenues) and were composed of 60 per cent on the expenditure side and the rest on the revenue side. Fiscal policy easing in these two years appears to have been greater than in other OECD countries (Denmark convergence programme 2011 p. 54).

FINLAND

Important remarks:

- The sources consulted for Finland are: IMF Recent Economic Developments, IMF Selected Background Issues and Statistical Appendices, IMF Staff Reports, OECD Economic Surveys, Budget documents, Economic Bulletins and Surveys

Finland 1992

According to Devries et al (2011) the 1992 Budget implemented initially Fmk 4 billion of spending cuts for 1992 motivated by a desire to reduce the deficit. In particular *“about 40 ‘savings bills’ designed to stop the growth in central government expenditure were presented to Parliament. [...] Among the most important of the bills passed was an amendment to the Employment Act whereby the obligation of central and local government authorities to provide the long term unemployed with employment was repealed. The earnings-related part of the unemployment benefit is to be reduced by 3 percentage points and the proportion of the expenditure of unemployment funds covered by the state by 0.5 percentage point. The daily sickness allowance will be cut by 5 percentage points. In addition, various laws concerning reductions in expenditure for agriculture are to be implemented. The proportion of the costs of exports of agricultural products payable by the state will be reduced and that payable by producers increased. [...] It is estimated that the savings due to the bills amount to about FIM 4 billion compared with the target of FIM 10 billion originally proposed.”* Rasi (1992). As can be noted, all of these policies fall in our definition of government transfers. Moreover, medium-term fiscal framework allocated Fmk 10 billion of spending cuts to be implemented in 1993. *“These measures were widely focused and included cuts in government consumption and investment as well as in transfers to local governments, households and industry”* (IMF Selected Background Issues and Statistical Appendix 1994, p.9).

During the year other spending increases compensated the 1992 budget consolidation but since the motivation for this additional spending was a countercyclical response to economic activity, Devries et al. (2011) do not subtract its budgetary impact from that of the fiscal consolidation measures. However a supplementary Budget (June 18) implemented a reduction in expenditures of Fmk 484 million. These expenditures cuts involved education, health care and employment promotion, partly compensated by increased support for agriculture and unemployment benefits (IMF Recent Economics Developments 1992, p. 17). As a consequence we code the 1992 Fiscal consolidation shock to be completely transfer-centered.

Notes:

- What concerns the measures planned for 1993, the exact composition of this measures is not known, but according to OECD Economic Survey 1992 they mostly consisted in transfers-related cuts. Hence we attribute 2/3 of the measures to transfers and 1/3 to consumption.

Finland 1993

In October 1992 further spending cuts valued at Fmk 8.5 billion were planned for 1993. *“The package included a large number of rather targeted and relatively specific expenditure cuts, ranging from tightening reimbursements for medical drugs, fees for visits to local health centers, and charges for secondary education to small cuts in subsidies to agriculture and shipping. In addition, the program included plans to reduce earnings-related unemployment benefits by 20 percent after the first 130 days of unemployment and to limit earnings-related benefits altogether to a maximum of 400 days (instead of the current 500 day limit). As part of the comprehensive incomes agreement reached in November 1992, however, the Government withdrew the proposed cuts in unemployment benefits. To finance the resulting higher expenditures, an unemployment contribution payable by employees was introduced (0.2 percent of income) and the employees' contribution rate to the health insurance was raised.”* (IMF Selected Background Issues and Statistical Appendix 1994, p.9). Given this information we consider this shock to consist only in transfers.

Notes:

- After repeated speculative attacks on the markka that in September 1992 culminated in the decision to let the markka float, and in response to an increasing sense of urgency concerning the rapid deterioration of public finances, the government announced an ambitious fiscal package in October 1992. (IMF Selected Background Issues and Statistical Appendix 1994, p.9)
- Notice that the October 1992 medium-term package planned also spending cuts of Fmk 16 billion in 1994 and Fmk 20 billion in 1995 (IMF Selected Background Issues and Statistical Appendix 1994, p.9). However, we do not code these last components as anticipated because, although a general budget ceiling for the central government was in place (Lehtonen, 1993), every saving bill had to be renewed during the year of implementation by the parliament (IMF Selected Background Issues and Statistical Appendix 1994, p.12). For example, even though the October 1992 planned budget savings of Fmk 16 billion, *“The implementation of these savings measures, however, fell short of what was envisaged. Although substantive, the impact of the measures, in fact, decayed over time, since not all of the savings were permanent. In the 1994 budget, expenditure cuts of about Fmk 14 billion were approved (well short of the effect envisaged from the combined October 1992 and March 1993 packages), and savings in "age and salary costs were smaller than anticipated.”* (IMF Recent Economic Developments, p.27). As a consequence we do not code as anticipated the budget cuts from 1993 to 1995.
- Also military expenditure was planned to be cut in 1993. However, according to IMF Recent Economic Developments 1993, p.18 the total savings in defense were equal only to Fmk 50 million. Since the amount is that small, we do not include it in the database.

Finland 1994

Consolidation measures totaled Fmk 17.6 billion for 1994 and Fmk -3.6 billion for 1995 and were driven by the government's multi-year deficit-reduction plan that started in 1992 and continued in 1993. *“Compared to the announced measures to be implemented in the 1994 budget that were contained in the October 1992 (Fmk 16 billion) and the March 1993 (Fmk 10 billion) packages, only Fmk 14 billion were approved”* (IMF Selected Background Issues and Statistical Appendix 1994, p.12).

Notes:

- *“No indexation of social transfers, a tightening of unemployment entitlement rules, and a 6 1/2 percent reduction in wage costs that was expected to yield Fmk 4 billion”*. Please note that due to lack of more granular information, we assume that the entire Fmk 4 billion amount was due to wage cuts, and thus can be classified as spending cuts.
- Real investment cuts measure amounts were calculated by subtracting the budget value for 1994 and the outturn of 1993: 3.4-2.6 (see table 4 vs table 6 of IMF Selected Background Issues and Statistical Appendix 1994).

Finland 1995

Fiscal consolidation in 1995 was motivated by deficit reduction, as the 1997 IMF Staff Report (p. 7) explains: *“At the inception of its mandate in early 1995, the government enacted a fiscal*

consolidation program aimed at restoring confidence in central government solvency, and, more specifically, at reversing the increase in its debt-to-GDP ratio before the 1999 general elections.”

The measures implemented amounted to Fmk 13 billion for 1995 and Fmk 8.65 billion for 1996 while consisting solely of spending side adjustments. According to Devries et al. (2011) the 1995 Budget included Fmk 13 billion of permanent spending cuts. “Some of these measures had already been in effect in 1994, but needed renewal” (IMF Recent Economic Developments 1995, p.28).

Finland 1996

Fiscal consolidation was, as in 1995, motivated by debt reduction and the need to meet the Maastricht criteria, as the 1996 IMF Staff Report (p. 13) explains: *“The authorities noted that fiscal policy in Finland is currently driven by one main goal: to reverse the trend in the central government debt-to-GDP ratio by 1999—a key electoral commitment of the Government. They also aim at meeting the EMU criteria for the general government in 1997.”* The unique measure put in place was the income tax cut for 1997, amounting to Fmk -1.6 billion.

Finland 1997

Fiscal consolidation in 1997 were motivated by the debt-reduction objectives defined in 1995 and 1996. The measures were contained in the 1997 budget, announced by the government in September 1996 and adopted by the parliament in January 1997 (OECD Economic Surveys 1997, pp.101-103). They consisted in spending cuts of Fmk 6 billion including “cuts in transfers to local government, reductions in unemployment and certain other social benefits, cuts in support to the business sector, postponement of social reforms, rationalization in the fields of defense, workplace health care and university organizations and regional government” (p. 103). At the same time taxes on income were cut of Fmk 3.9 billion. The lower proceeds were only in part compensated by the increase in environment based taxes of Fmk 1 billion.

Notes:

- Since, according to OECD Economic Surveys 1996 (p.28), an income tax cut of Fmk 1.6 billion was already scheduled in September 1995 to be effective in 1997, the Fmk 3.9 billion is calculated as the residual of the Fmk 5.5 billion tax cut package effectively approved in January 1997.

Finland 2010

“General government finances are in a more vulnerable position from which to meet expenditure pressures and the narrowing of the tax base arising from population ageing. Ensuring the sustainability of public finances now presents a greater challenge than before.” “Restoring general government finances in Finland will be a particularly challenging task, because the baby boomers are now reaching retirement age.” (Stability Program 2011).

A fiscal plan consisting of announcements of increases in indirect taxes such as excises and VAT took place in 2010 together with an unexpected increase in VAT and cyclical expansionary measures announced between the end of 2009 and beginning of 2010 (Macro Fiscal assessment 2010, Table 4). For this reason all unexpected current shocks have been excluded.

Finland 2012

“The Government’s immediate adjustment measures and the current reforms to restructure the economy are aimed at maintaining confidence in the ability of Finnish government to keep its public finances on a sustainable basis.” “The Government is also committed to implementing additional measures if there are no indications of a fall in the central government debt-to-GDP ratio and if the central government deficit shows signs of settling above 1 per cent of GDP” “According to a revised sustainability estimate of the Ministry of Finance, the general government financial surplus ought to be 3.3 per cent of GDP in 2017 to enable the public authorities to handle their obligations also over the longer term.” (Stability Programme 2012, 2013).

After the elections in 2011, the new government decided on new measures in different occasions (spending limits decision in October 2011, the framework agreement of the labour market confederations in November 2011 and spending limits decision in April 2012). The measures are recorded from 2012 and 2013 Stability programmes and the 2011 National reform program (p. 19) and consist of both tax hikes (with a focus on excises and other indirect taxes) and spending cuts.

Finland 2014

“In its Government Programme, the Government committed to initiating the measures necessary to fully close the sustainability gap by 2015.” “To ensure that central government indebtedness levels off in a credible way and within a realistic time frame, the Government has decided on new measures, which will reduce central government expenditure and increase revenue by EUR 2.3 billion at the 2018 level. The measures will be implemented mainly in 2015.” “The Government Programme set as an objective the achievement of a substantial reduction in the central government debt-to-GDP ratio by the end of this parliamentary term. If there are no indications of a fall in the central government debt-to-GDP ratio, the Government is committed to implementing the necessary adjustment measures directed at central government revenue and expenditure to achieve the targets.” (Stability Programme 2014)

The new fiscal measures of this year are contained in the budget approved by the parliament in December 20th , 2013 and the General Government Fiscal Plan adopted in April 3rd 2014. In addition, in March 2014 the Finnish Government agreed on the implementation of a Structural Policy Programme, adopted in the autumn 2013, as part of the General Government Fiscal Plan. “The Structural Policy Programme includes significant structural reforms directed at fiscal management and public service provision, which will strengthen fiscal sustainability in the long term.” (Stability Programme 2014)

Final notes:

- Notes on late 1970s and 1980s. In the late 1970s, fiscal policy tightened, but the motivation was primarily restraining domestic demand to improve the external current account balance and reduce inflation. Therefore, we do not record these policy measures as fiscal consolidation motivated primarily by deficit-reduction and fiscal sustainability considerations. As the IMF Recent Economic Developments explains (p. 22): “In formulating the ordinary budget for 1976, the policy priorities continued to be the improvement of the external current account position and the checking of inflation.” Following fiscal relaxation in the early 1980s, fiscal policy tightened again in the mid- to late-1980s, but the motivation was primarily countercyclical — restraining domestic demand, as the 1985 IMF Recent Economic Developments explains (pp. 24-25): “As the international recovery gathered strength during 1983, it was judged necessary to tighten fiscal policy so as to offset the strong stimulus likely to derive from the expected surge in the growth of external demand and to counter the mounting imbalances in the economy... The withdrawal of fiscal stimulus [in 1984] was calculated at roughly 1 percent of GDP... The shift to a contractionary fiscal stance had the desired result, and the growth of domestic demand decelerated notably, just as the boom in exports was developing. In the budget for 1985, a further tightening of the fiscal position is sought, in support of the official inflation objective... The withdrawal of fiscal stimulus [in 1985] is calculated at 0.6 percent of GDP (general government basis).” Similarly, in 1988, fiscal policy tightened to cool domestic demand, as the OECD Economic Surveys 1987/1988 explains (p. 15): “The 1988 budget foresees a tightening of the fiscal policy stance because of concerns about rapid private consumption growth and a deteriorating current account balance.”
- Notes on 1998-2000. The acceleration of economic growth and the rapid rise of asset prices and inflation from late 1997 onwards motivated a fiscal policy tightening in 1998, as the 1998 IMF Staff Report explains (p. 10): “The authorities noted that concerns about a possible overheating intensified during the second half of 1997... In response to these developments, monetary and fiscal policies had been tightened... As to fiscal policy, the freeze in state budget expenditure had been confirmed in the 1998 budget and in the 1999 budget guidelines issued in February.” Similarly, the OECD Economic Surveys 1998 notes (p. 49) that “In order to limit the risk of economic overheating... the government included additional spending cuts of around Mk 2 billion (½ percent of GDP) in the 1998 budget.” A similar countercyclical motivation guided spending cuts in the 1999 budget, as the OECD Economic Surveys 1998-1999 notes (p. 33): “The draft 1999 budget included FIM 4 billion (0.6 percent of GDP) additional spending cuts compared to the preliminary expenditure guideline aimed at limiting the risk of overheating. At the same time, it included income tax cuts of around FIM 4 billion.” Since the spending cuts were largely motivated by restraining domestic demand and the income tax cuts were motivated by long-run supply-side considerations as in 1997 (see entry for 1997 above), we do not consider 1999 as a year of fiscal consolidation motivated by deficit reduction. Additional tax cuts occurred in 2000, again motivated by long-run considerations (OECD Economic Surveys 1999-2000, p. 40). The budget surplus increased in 2000 despite further income tax cuts motivated by long-run considerations, but this improvement was mainly due to the sharp upswing in economic activity, as the OECD Economic Surveys 2000-2001 explains (p. 37): “The 2000 budget outcome: a very high surplus was mainly due to one-off factors. In 2000, the rise in general government tax revenues on income and wealth was exceptionally strong (23 percent) as substantial one-off revenues came on top of a sharp increase due to very rapid growth.” In addition, spending cuts occurred in 2000, but the motivation was primarily to restrain domestic demand and reduce the risk of overheating, as the Ministry of Finance Press Release of March 7 2000 clarified (p. 1): “Signs of overheating are becoming alarmingly widespread in the Finnish economy... In these conditions, it has become justifiable to adopt a tough stance in fiscal policy to ensure that economic developments remain on a balanced course.” Spending cuts in 2000 amounted to about 2 percent of GDP and helped to restrain aggregate demand, as the 2001 IMF Staff Report (p. 8) reports: “staff estimates a fiscal withdrawal in 2000, brought about by a tightening of structural primary spending relative to GDP, of some 2 percentage points of GDP — strongly counteracting the monetary stimulus.”
- Notes on 2008, 2009, 2011 and 2013. 2008 and 2009 are expansionary years, while no exogenous new adjustment plan is recorded in 2011 and 2013, with exception to those taken after September, as usual considered in the following year. Measures announced in 2013 consist of both tax cuts and hikes that have both been excluded since “At the beginning of last year, a number of changes were made to tax bases that both increased and decreased tax revenue, but their net effect on tax revenue was rather limited” (Stability Program 2014)

FRANCE

France 1979

Fiscal consolidation in 1979 consisted of a hike in social security contributions motivated by deficit reduction, as the 1979 IMF Staff Report (pp. 6-7) explains: “*The area of greatest concern to the authorities within the sphere of public finance remains the social security system... The importance*

attached by the authorities to restoring the financial integrity of the social security system was demonstrated recently by the Government's decision to stake its continuation in office on the passage by Parliament of a bill subjecting certain retirement pensions to social security contributions."

Since social security spending was the major threat to France fiscal stability (IMF Staff Report 1979, p. 6), the government decided to raise social security contribution rate three times during the year, in January, April and August, collecting a total F 22 billion extra revenues (OECD Economic Surveys 1980, p.43).

Notes:

- In addition the government promoted measures to support private investments, encourage activity in building and civil engineering industries and benefits for old people and large families (OECD Economic Surveys 1980, p. 43). We do not take into account these measures as they seem to be motivated by cyclical considerations.
- Corporate and private share were calculated using the social security contribution rates for employers (37.41) and employees (10.04) in Simanis, J. G. (1980), "Worldwide Trends in Social Security, 1979", p. 8, table 2.

France 1986

The conservative government in office from March 1986 reaffirmed the necessity to bring the fiscal deficit under control in order to lower the tax burden (IMF Recent Economic Developments 1988, p. 29-30). The measures implemented were the anticipation of a larger package adopted in 1987.

According to IMF Recent Economic Developments 1986 (pp.31-32), the measure amount totaled F - 13 billion for year 1987 and consisted solely of tax adjustments.

France 1987

The newly elected government implemented fiscal consolidation in 1987 aimed at reducing the fiscal deficit to provide room for maneuver to fiscal policy and lowering the tax burden (1988 IMF Recent Economic Developments, p. 29). In a Speech to the Assemblée Nationale on April 9, 1986 (Journal Officiel de la République Française, 1986, p. 87) the Prime Minister highlighted the deterioration of the public finances in recent years and the need for an independent report on government debt, the budget deficit and the social security accounts.

On the spending side, in the 1987 budget, French government promoted the increase in efficiency of the government sector, reducing government payroll and transfers to enterprises for a total F 30 billion. Additional F 10 billion were expected to come from rationalization of the Health sector ("Plan Seguin"). *"This plan is estimated to have saved some F 10 billion, or more than 2 percent of total health spending in 1987... The principal savings from the Plan Seguin have derived from the reduction in the reimbursement rate on nonessential medical prescriptions and from changes in the coverage of selected treatments"*. At the same time the government continued the plan of tax cuts started in 1986 and aimed at meeting the tax harmonization targets of the EEC. New tax exemptions were added to the ones already scheduled for 1987. However in May, given the worsening situation of Social Security ("Régime Général") deficit, the government was forced to announce a plan of temporary tax hikes ("Plan d'urgence") starting from July and effective until July 1988. This included increases in health care and pension contribution, the extension of a special surcharge on income and an increase in VAT on tobacco products, for a total F 21.3 billion extra revenues (IMF Recent Economic Developments 1988, p. 35).). At the same time the government continued the plan of tax cuts started in 1986 and aimed at meeting the tax harmonization targets of the EEC.

Thus, the total of measures put in place in 1987 amounted to F 26 billion for 1987 (F 40 billion of spending cuts and F 14 billion of tax cuts) and F -10.65 billion for 1989 consisting mostly of tax cuts.

Notes:

- As in Devries et al. (2011), we attribute to 1987 half of the revenues coming from the tax hike, since it was effective only in July.
- We take the total amount of savings from the 1987 budget as in IMF Recent Economic Developments 1988 (p. 30) and we subtract the reduction in subsidies as in Table 27, IMF Recent Economic Developments 1987 (p. 61). Since the two types of measures listed are reduction in subsidies and cuts to government payroll, we classify the residual as savings from the latter.
- Note on 1988: consistently with Devries et al., as the tax hikes were effective for 12 months, from July 1987 to July 1988, we attribute half the impact to 1987 and half to 1988. However the latter is off-set by the expiration of half the measures. Hence in 1988 there was no net consolidation.

France 1991

Fiscal consolidation in 1991 was motivated the government's commitment to reduce the budget deficit, as the 1991 *IMF Recent Economic Developments* (p. 9) reports. To meet the deficit reduction commitment despite an increase in spending associated with the Gulf war and a slowdown in economic activity, a number of fiscal consolidation measures were taken. In particular, "*achievement of the deficit objective verged crucially on stringent expenditure control*" (p. 9).

Fiscal consolidation consisted in two rounds of measures implemented in March and late May. The first package called for spending cuts of F 10.2 billion, reducing current and capital expenditure of few government departments such as urban development and housing and transportation (IMF Recent Economic Developments 1991, p. 10 and Les Echos, 1991a), the second one called for additional measures of F 17 billion both on the spending and the tax (VAT) side, (Les Echos, 1991b) including F 6 billion taken from the budget of various state owned institutions that should not take into account according to our methodology (see notes). During the year the Gulf war was expected to lead to an extra F 10 billion spending. However these extra expenditures were almost entirely financed by transfers from Germany, Kuwait and Belgium (IMF Recent Economic Developments 1991, p. 10 footnote 3 and OECD Economic Surveys, 1992, p. 41 and also Les Echos, 1991a).

Thus, the totals of the consolidation measures were F 21.2 billion for year 1991 (of which F 15.2 billion coming from the spending side) and F -4 billion, entirely attributed to the tax side.

Notes:

- According to Les Echos (1991a), this additional consolidation of F 10.2 billion was justified by the need to finance the military operations in the Gulf war and to compensate for lower growth than expected.
- Of the F 17 billion of measures mentioned in the description, F 7 billion had a temporary nature, according to IMF Recent Economic Developments 1991 (p. 10).
- In Devries et al. (2011) they don't take into account the extra financing source in the form of transfers that came from Germany, Kuwait and Belgium offset the military spending.
- While computing spending measure amounts, we exclude F 6 billion taken from the budget of various state owned institutions: F 3 billions came from the CACOM ("Caisse de consolidation et de mobilization des crédits à moyen terme) that was shut down and its remaining budget was taken by the State, the rest came from the EPAD, from the "Caisse d'aide au départ", PMU and from the national institute of industrial property. This measures was contained in the May consolidation and had a temporary nature.
- The F 3.8 billion of new saving measures were computed as follows: 5 billions "économies nouvelles"- 1.2 for lower social housing.
- The F 4.123 billion from other expenditure restraints were computed as residual of the other measures listed.

France 1995

Reducing the deficit still remained the key issue for French governments, in particular to meet the deficit convergence criteria for the European Monetary Union (IMF Recent Economic Developments 1996, p.12). Evidence that policymakers were concerned about the large budget deficit is clear in the text of the Guidance Law on the Control of Public Finances passed in January 1994, which mentions “*a serious budgetary crisis*” due to the increase in the fiscal deficit during 1990-1993. The new government that took office in May announced a plan to restrain the deficit in 1995 and to reduce it in 1996 and 1997. The first set of measures was the “Supplementary Budget”, introduced in end June/beginning of July. It included tax hikes estimated to generate additional F 30 billion (rise in VAT standard rate, surcharge on corporate and wealth tax), cuts to lower priority spending (more than half military spending) for F 19 billion (Le Monde, 1995a) and increase in spending of F 32 billion (IMF) (mainly labor market and social measures), totaling a net spending increase of F 13 billion. However expenditures increased more than expected, due to disaster relief provided to the Netherlands Antilles, the participation in security operations in the Balkans, the introduction of a higher back-to-school allowance and other small measures. To finance these additional expenditures and to cover the shortfall in tax revenues, the government announced a new supplementary budget in November. It called for an additional restraint in expenditure for F 20 billion, including cuts to military procurement, housing subsidies and cultural activities. Thus over the year, according to IMF Recent Economic Developments 1996 (pp. 13), OECD Economic Surveys 1995 (p. 35), Le Monde (1995), the measures totaled F -9.2 billion in spending for 1995, F 31.16 billion in revenues for 1995 and F 39.4 in revenues for 1996.

Notes:

- The wealth tax, abolished in 1987, was then reintroduced in 1989 (OECD Economic Surveys 1989, p. 78).
- According to OECD Economic Surveys 1995 (p. 35) the tax hikes of F 30 billion introduced in 1995 had a temporary nature, but their expiration was linked to the fulfillment of Maastricht criteria.
- As they did in Devries et al. (2011), we take into account the extra spending on higher back-to-school allowance, disaster relief provided to the Netherlands Antilles and the participation in security operations in the Balkan since it was not “a response to domestic economic activity”.
- “Following the adoption of the supplementary budget in July, the economy weakened further, and an additional shortfall in tax revenue, which ultimately amounted to about F 25 billion (1/3 percent of GDP), began to emerge. [...] Moreover, spending was higher than envisaged in the July supplementary budget, with a back-to-school allowance (F 4.6 billion), disaster relief for the Netherlands Antilles, and participation in security operations in the Balkans accounting for much of the difference” IMF Recent Economic Developments 1996, p. 13. As explained, the second supplementary budget became necessary partly for exogenous reasons (relief to Antilles and Balkans), partly to the worsening of the economy. The new adjustment was announced to meet the deficit reduction target already decided for the year.
- The F 39 billion of tax hikes for 1996 were calculated as variation: proceeds in 1996 - proceeds in 1995 = 56.6-17.4=39.4 (source Le Monde, 1995a).
- The F 12.88 billion from the increase of the tax on the profits of enterprises were calculated as residual: 30-17.4-0.88=11.72 (source: Le Monde, 1995).
- The F 9.7 billion from other spending cuts were calculated as residual of all the other measures.

France 1996

In 1996 French government continued pursuing deficit reduction to meet the Maastricht criteria. New measures were taken both on the spending side (F 20 billion spending freeze) and on the tax side (F 10 billion from increase in tax on gasoline, tobacco and alcohol). In addition in November 1995 the government announced a plan to reform the social security system. The plan envisaged increases in contribution rates and spending cuts in three main areas: health care, families and pensions. Thus, according to IMF Recent Economic Development 1996 (p. 15 and 17-20), on the revenues side measures totaled F 33.45 billion for year 1996 and F 8.3 billion for 1997 while the spending measures totaled F 32.25 billion for 1996 and F 16.9 billion for 1997.

Notes:

- What concerns the F 12.5 billion coming from the special income tax, total revenues of this measure were expected to be 25 billion in 1996 (IMF Recent Economic Developments 1996, p. 19).
- The F 39.4 billion from the increase of the standard VAT tax rate was calculated as variation: proceeds in 1996 - proceeds in 1995 = 56.6-17.4=39.4 (source Le Monde, 1995a).
- F 8.2 billion from virtual freeze in real terms of spending on physician service and hospitalization was calculated as residual.
- F 2.25 billion from other spending cuts in social security, Family branch (social security reform) was calculated as residual.
- The F 20 billion of expenditure freeze measure justified by: “The Minister of Finance announces that FF 20 billion in credits in the 1996 Budget will be frozen.” according to OECD Economic Surveys 1997 (p.148).

France 1997

The newly elected socialist government, as soon as it took office, announced a spending increase of 0.1 percent of GDP. (IMF Staff Report 1997, p. 11). However after the presentation of the Bonnet-Nasse Report on public finances in July (“Rapport d'audit sur les finances publiques”), that forecasted a deficit amounting to 3.5-3.7 percent of GDP in 1997, definitely higher than the Maastricht ceiling, the government decided to implement a plan to cut the deficit of 0.4 percent of GDP (Banque de France Rapport Annuel 1997, p.44). It comprised corrective measures on the spending side (F 10 billion expenditure cuts) and on the tax side (a temporary 15 percent surcharge on tax for companies that have a turnover of more than F 50 million, including long-term capital gains). In addition the 1996 social security reform had a budgetary effect of F 22.2 billion. Thus, according to IMF Staff Report 1997 (p. 11) and Banque de France, Rapport Annuel 1997 (p.44) for the 1997 new measures and IMF Recent Economic Developments 1996 (pp. 17-20) for the social security reform the consolidation measures totaled F 24 billion for 1997, F -8 billion for 1999 and F -16 billion for 2000, all coming from the spending side.

Notes:

- The F 24 billion from the temporary 15 percent surcharge on corporate tax was calculated using the percentage in IMF Staff Report 1997 and Banque de France and OECD estimation of 1997 GDP.
- The F 9.2 billion from other spending cuts in social security (1996 social security reform) was calculated as residual.

France 2010

In 2010 the government announces the intention to reduce budget deficit starting from the following year. “*Beyond 2010, the French government will considerably strengthen its efforts to consolidate public finances [...] The Government's strategy involves pursuing structural reforms that encourage growth and – rather than raising taxes – reducing public spending*” (France Stability Programme 2010-2013, January 2010, p. 2). “*In the 2010-2013 Stability Programme submitted in January 2010, France described its strategy for reducing the deficit to 6.0% of GDP in 2011, 4.6% in 2012, and under 3% of GDP by 2013, by carrying out a structural adjustment of more than 4 points of GDP over the 2010–2013 period. On 13 July 2010, the ECOFIN Council stated that France had complied with this recommendation, and that no additional measures were needed at this stage within the framework of the excessive deficit procedure*” (p. 35). However, the measures for 2011 were enacted and consisted of spending side adjustments of public investment and transfers.

France 2011

“*In this context, the Government has resolved to pursue its fiscal consolidation policy in order to reduce the deficit to 3% of GDP by 2013, regardless of the economic situation. To this end, the Government intends to stimulate the economy's potential growth by expanding the structural reforms undertaken since 2007, particularly in the areas of education, innovation, research and development,*

and competition. The Government's strategy in this regard is detailed in the National Reform Programme. The Government has also intensified its efforts to control public spending over the long term, and these efforts began to show results in 2010. Given the already high level of the tax burden in France, the Government is determined to focus its efforts on reducing spending." (France Stability Programme 2011-2014, April 2011, p. 4). The savings measures that were taken to ensure the reduction of public deficit in 2011 were introduced in the Initial Budget Act (LFI) and the Social Security Budget Act (LFSS) in December 2010. The total amount of measures in the two Acts is € 11.9 billion and is fully based on tax hikes. The LFI and LFSS also announced measures for 2012 for a total of €2.4 billion fully based on tax hikes. Moreover, in November 2010 a Pension Reform was approved. The latter had a forecasted impact of €16 billion up to 2016 (Stability Programme 2012-2016, April 2012, p. 31). There were additional spending cuts concerning wage bills, state's operating costs and savings under the National Health Expenditure Target that were announced on the 24th of August and account for total savings of €9.7 billions. Moreover, stimulus measures amounting to € 15 billion were withdrawn (OECD Restoring Public Finances, 2011). Finally, additional revenues measures for € 1 billion were introduced on the 24th of August and a package of measures was announced before the 24th of August with an impact of €10.4 billion in 2011 and €2 billion in 2012.

Notes:

- Notice that for what concerns the Pension Reform and spending reductions contained in the consolidation plan 2011-2016, we used for year 2011 the realized impacts provided in Box 1 since they are the most reliable source we found. Contrarily on what we try to do in every episode, we could not use the projected amounts.

France 2012

"The Government upheld its unwavering commitment to reduce general government deficit, despite the worsening of the economic situation that started in the third quarter of 2011. On 24 August 2011, the Government decided to back up the revision of its growth forecast with an effort to trim the deficit by €11 billion in 2011 and 2012, and, on 7 November 2011, it decided to cut another €17.4 billion between 2012 and 2016" (Stability Programme 2012-2016, p. 4). The government continued on the deficit consolidation path that started in 2011. Given the bad economic conditions, the adjustment appears purely motivated by the need to improve the fiscal stance. *"After the deficit came out better than expected at 5.2% of GDP in 2011, the programme plans to bring it down to 3% of GDP in 2013, which is the deadline set by the Council for correcting the excessive deficit, and to continue consolidation thereafter, with a balanced budget to be achieved by 2016"*

(European Commission Recommendation for a Council Recommendation on France's 2012 National Reform Programme and delivering a Council Opinion on France's Stability Programme for 2012-2016, May 2012, p. 3). The Budget measures introduced in 2012 are summarized in Box 1, p. 11 of the Stability Programme 2012-2016. The total impact of measures until 2016 is estimated to bring savings for €115 billion. Spending cuts amount to €12.7 billion (Box 1, p. 11), while revenues increase coming from measures announced on the 24th of August is €9 billions and additional revenues are estimated to come from measures announced on the 7th of November 2011 and amounting to €5.2 billion. For what concerns the measures announced in the LFI and LFSS, the impact in 2012 was estimated to be €2.4 billion. Measures announced before the 24th of August had an announced impact of €2 billion. Finally, there is an additional €2.7 billion cut in spending introduced in the Budget Bill and in the Supplementary Budget Act promulgated in March (p. 19).

France 2013

"The main goal of the 2013 stability programme is to achieve the medium-term objective (MTO), i.e. a balanced budget in structural terms, as in last year's programme" (Assessment of the 2013 national reform programme and stability programme for France, p. 10). The Government's objective is to reduce the debt-to-GDP ratio and achieve a structural balance in public accounts in the medium term

(2016). To this end, particular attention is paid to a structural consolidation, through measures that preserve growth. The measures introduced in the year follow the consolidation started in 2011 and are presented in the Assessment of the 2013 national reform programme and stability programme for France (p. 14).

France 2014

In 2014 the government continued with its pursue of deficit reduction: “The Government will take the necessary steps to comply with its fiscal commitments and to ensure that the government deficit returns to 3% of GDP in 2015.” (France Sstability Programme 2014-2017). Measures mostly consisted of revenue side adjustments and concentrated on consumption and transfer, with the total over the four years approaching €55 billion.

Final notes:

- Notes on 1981-84. During 1981-82, a fiscal policy expansion occurred motivated by the need to reduce unemployment (OECD Economic Surveys 1983-84, p. 8). Fiscal policy tightened in 1983, motivated primarily by the need to reduce the external current account deficit by restraining domestic demand as the 1983 IMF Recent Economic Developments (p. 3) explains: “In response to the widening current account deficit since late 1981, the authorities announced a package of measures on March 25, 1983 aimed at reducing domestic demand... The package consisted of public spending cuts, tax increases, and measures to increase private saving.” In a television interview on March 25, 1983, Jacques Delors, then Minister of Finance, justified the fiscal consolidation measures by referring to the growing French trade deficit (Antenne 2 Journal télévisé de 20 H, March 25 1983, transcript, p. 1): “We cannot continue to consume more than we produce, to buy more than we sell abroad. For three, four years, France is in this situation. This must change, and fast... We designed these measures as much as possible by reducing public deficits, and the least possible by directly reducing household incomes.... This effort is only temporary. It must be massive enough to allow the rapid decline in imports in an open economy without protectionism.” The fiscal tightening introduced in 1983 motivated by the need to reduce the external current account deficit was maintained in 1984, as the 1984 IMF Staff Report (p. 8) explains: “The French representatives considered that in 1983 substantial progress had been made in achieving the Government's immediate objectives. They said that policies would remain in place that targeted an elimination of the current account deficit by the end of 1984 and that would achieve a further reduction in the rate of inflation to 5 percent through 1984. For the longer term, their objectives were to reduce the rate of inflation at least to the average of partner countries, and to achieve a current account surplus in 1985 and beyond.” Overall, since fiscal policy tightening during 1983-84 was primarily motivated the need to restrain domestic demand and the growing current account deficit, we do not record it as a case of fiscal consolidation motivated by deficit reduction in our database.
- Note on 2009. 2009 is characterized by an expansion of the budget deficit in order to reduce the negative effects of the financial crisis. “For 2009, the deficit forecast was revised upward from 2.7 to 3.9 points of GDP: -0.8 point of GDP due to the recovery plan and -0.4 point of GDP owing to adjustment of macroeconomic forecasts with nearly zero elasticity of the State's net tax revenue to activity (0.3)” (France Stability Programme 2009-2012, December 2008, p. 10).

GERMANY

Important remarks:

- The sources consulted for Germany are: IMF Recent Economic Developments, OECD Economic Surveys, Germany Financial Stability Program, IMF Staff Reports

Germany 1982

Fiscal consolidation in 1982 was motivated by the widespread concern about the size of the deficit, as the 1982 IMF Recent Economic Developments (p. 18) reports: “*calls from important groups within the private sector for a reduction of the fiscal deficit through comprehensive measures to slow down*

the growth of expenditures, including changes in social and other legislation. The strength of these calls suggested to the Government that the absence of decisive and reliable steps toward fiscal consolidation would harm the confidence of, in particular, investors.”

The Financial Planning Council, which consists of representatives of the Federal Government, the Länder, and local authorities recommended bringing the deficit in 1982 back to the 1980 level. In response to these concerns and recommendations, the Federal Government adopted a new medium-term fiscal consolidation plan in September 1981 consisting mainly of spending cuts, which was passed by Parliament in December 1981. This set of measures was denominated Operation '82. According to IMF Recent Economic Developments 1982 (pp. 27 and 104) and OECD Economic Surveys 1982 (p. 61), the measures for 1982 totaled 21.5 DM billion (split almost equally among revenues and spending) while additional measures of DM -5.7 billion were announced for 1984.

Notes:

- During the year some expansionary measure (industry subsidies, spending in constructions etc.) were implemented. However, we do not take them into account since these were motivated by the economy weakness (IMF Recent Economic Development 1981, p.27).
- As a countermeasure to the increase in unemployment insurance tax rate, to avoid an excessive fiscal pressure, the contribution rate to the pension insurance funds was lowered by half a point. However this measure had no implication for the Federal Finances (IMF Recent Economic Development 1982, p. 27).
- As IMF Recent Economic Developments (p. 27) explains, the unemployment insurance tax is shared equally by employers and employee.
- While computing the spending side measures, we took the data from IMF Recent Economic Developments 1982, table 21 and refer to Federal Government plus Lander and local authorities, as Devries et al. did.

Germany 1983

Fiscal consolidation continued in 1983, motivated by deficit reduction. Concern about the size of the fiscal deficit remained high given the growing share of interest payments in public-sector spending, as the OECD Economic Surveys 1983 (pp. 28-29) explains: *“However, the broadly neutral ex post demand impact of public sector transactions conceals an increase in the cyclical component of the public sector deficit estimated at 1½ percentage points and a marked ex ante swing of fiscal policy towards consolidation. This tendency, although less pronounced, is projected to continue in 1983”*.

The 1983 budget was first drafted in July 1982 and then updated by the new government in October 1982 and adopted by the Bundestag in December 1982. (OECD Economic Surveys 1983, p. 59). According to IMF Recent Economic Developments 1983 (pp. 23-24), the measures amounted to DM 16.6 billion for 1983, with a high share of spending side measures.

Notes:

- The 1983 budget included as well a compulsory 5 percent levy on high incomes. However the proceeds were entirely designed to finance social housing construction and for subsidies to private housing construction (IMF Recent Economic Developments 1983, p. 23). For this reason we do not take the tax into account, as in Devries et al. (2011).
- While calculating the proceeds from contributions to the Federal Labor Office, we considered that the contribution is shared equally between employers and employees (IMF Recent Economic Developments 1983, p. 23).
- As in Devries et al. (2011) we take into account data for Federal Government, Länder and Municipalities for the calculation of the spending side measures.

Germany 1991

Fiscal consolidation was motivated by the need to reduce a large budget deficit, as the 1991 IMF Economic Developments and Issues reports (p. 7), *“The government announced in the November 1990 Eckwertebeschluss (decision on fiscal benchmarks) that the territorial authorities’ deficit would*

not be allowed to exceed 5 percent of GNP in the short run and would be brought back to below 3 percent by 1994”.

The resolution to limit the deficit of the federal government and territorial authorities was announced by the government in November 1990. A set of measures for 1991 and 1992 followed in January 1991, including mainly cuts in transfers to Federal Labor Office compensated by an increase in unemployment insurance contribution rate and cuts in subsidies (IMF Economic Developments and Issues 1991, p.22-23). In addition a one percent rise in VAT rate was planned for 1993. These measures had a budgetary impact of DM 15 billion in 1991. In late February an additional consolidation became necessary due to higher financing needs of East German states and higher outlays for the crisis in Middle East. It consisted in (temporary and permanent) tax hikes for 1991 and 1992 worth DM 18.2 billion in 1991. At the same time the program named “Joint Effort - Upswing East” was implemented, augmenting infrastructure investments and other expenditure in East Germany, along with a set of tax exemptions for East Germany. Thus, overall, according to IMF Economic Developments and Issues 1991 (p. 25), a set of measures (with a majority of tax measures) worth DM 60 billion was put in place for years 1991-1994.

Notes:

- Measures included as well cuts in defense expenditure of DM 7.5 billion, not realized because of the Gulf War (Devries et. al 2011) and postponement of investment outlays of DM 2.25 billion not considered in Devries et al. maybe because it was off-set by the February investment plan.
- “In late February due to much higher than expected financing needs of the east German states and municipalities and additional outlays related to eastern Europe and the crisis in the Middle East it became evident that expenditure would exceed the budgeted amount by a substantial margin” (IMF Economic Developments and Issues 1991, p.23).
- In computing the revenue side measures, we excluded DM 2 billion from higher contribution of the Federal Post Office to the federal government, as it is not a tax hike neither a spending reduction.
- In calculating the unemployment insurance contributions, we considered that the unemployment insurance contribution is shared equally between employers and employees.
- We considered that the pension insurance contribution is paid half by the employer and half by the employee while computing the measure loadings.
- Devries et al. report that temporary measures expiring in 1993 amounted to DM 15.1 billion. However the only temporary measure we could identify referring to 1991 IMF Economic Developments and Issues were the 12-month tax surcharge. It had a budgetary impact of DM 11.3 billion in 1991, 10.7 in 1992 and 0 onwards. Taking changes between years, we record: +11.3 in 1991, -0.6 in 1992 and -10.7 in 1993.

Germany 1993

Fiscal consolidation was motivated by the need to meet the medium-term deficit-reduction goals agreed in July 1991, as the 1994 IMF Economic Developments and Issues explains (p. 8).

In March 1993 the government proposed a “solidarity pact” to reduce the deficit of territorial authorities including the reform of revenue sharing between federal state and local authorities, some expenditure cuts and the reimposition of 7.5 percent “solidarity surcharge” on incomes starting from 1995. This package generated an effect only in year 1995, amounting to DM 32 billion according to IMF Economic Developments and Issues 1991 (p. 98 and 104) and to IMF Economic Developments and Issues 1994 (p.8).

Germany 1994

In July 1993, the Cabinet approved a package of new measures, passed into law at the end of the year, intended to limit the federal budget deficit in 1994 to 2¼ percent of GNP (1994 IMF Economic Developments and Selected Background Issues, p. 39). The package was primarily intended to reduce

the deficit and was not motivated by the need to restrain domestic demand (the economy was still recovering from the 1993 recession).

The proposed package of consolidation measures passed into law at the end of the year. It included measures to reduce expenditure (mainly social) and to increase revenues, reducing exemptions and fighting tax evasion. Thus over the year, according to IMF Staff report 1993 - Supplement (p. 10) and IMF Economic Developments and Issues 1994 (p.39) the total consolidation amounts were DM 25 billion for 1994 and DM 7 billion for 1995, consisting mostly of spending cuts.

Notes:

- Although the package included as well an increase in fuel tax, we do not take it into account since it was explicitly designed to finance the restructuring of federal railways (IMF Economic Developments 1994, p.9).
- While computing the spending side measures, we used the amounts from IMF Staff Report 1993 - Supplement (p.10). Although it describes the package only as originally proposed, the decomposition is similar to the one of the package effectively adopted (as in IMF Economic Developments and Issues 1994, p. 39).

Germany 1997

Fiscal consolidation in 1997 was primarily motivated by deficit reduction and meeting the Maastricht deficit criteria, as the 1997 IMF Staff Report reports (p. 20): *“To shore up the public finances, the authorities adopted in late 1996 substantial discretionary fiscal measures as part of the budget for 1997, which were heavily weighted on spending cuts... With these measures, the authorities expected that the general government deficit would decline to 2% percent of GDP in 1997, safely under the Maastricht reference value.”*

Fiscal consolidation measures were adopted in late 1996 as part of the 1997 budget. They consisted in cuts to public spending (1 percent of GDP) and increase in revenues from pension contribution (0.5 percent of GDP). A freeze on discretionary expenditures worth an additional 0.1 percent of GDP was proposed in May. Thus, according to IMF Staff Report 1997 (pp.20-22), OECD Economic Surveys 1997 (pp. 44-46) and Die Welt (12.11.1997, “Waigel muß Haushalt erneut umschichten”), the measures totaled DM 57.4 billion for 1997 and DM -3 billion for 1998.

Notes:

- “Structural weaknesses in the economy and in the tax system have undermined fiscal performance in 1997. With greater unemployment, particularly in the construction sector, spending on unemployment benefits is now expected to be higher by 1/2 percentage point of GDP [...] In all, revenues are now projected to fall short of earlier estimates by about 3/4 percentage point of GDP. With the Maastricht target in jeopardy, in May the authorities initiated a freeze on discretionary expenditures” (IMF Staff report 1997, p. 22).
- The amounts of the spending side measures are calculated taking the percentages of GDP from IMF Staff report 1997 and the official OECD estimate of GDP for 1997.

Germany 1998

Following the 1997, the deficit reduction remained a priority of the fiscal policy. The only two measures were implemented on the revenue side and were due to postponing and late adoption of the measures planned in the previous year (1997 IMF Staff Report reports (p. 20). The projected rise in VAT was put in place, however, partially offset by the reduction of solidarity surcharge (Bundesministerium der Finanzen, September 2013, “Übersicht über die Steuerrechtsänderungen seit 1964”, p. 97). Overall the measures imposed a net consolidation of DM 3.9 billion for 1998.

Germany 1999

The new government which came into office after October 1998 retained the deficit-reduction objective of its predecessor (OECD Economic Surveys 1998-1999, p. 49).

The spending-based consolidation was a consequence of the package (“Future Programme”) presented by the government in June 1999 to meet the deficit reduction targets. It envisaged a wide variety of targeted spending cuts (mainly to social programs, public sector employment and subsidies) generating a total DM 30.5 billion (0.75 percent of GDP) savings in 2000 (OECD Economic Surveys 1999, pp. 177). Also, the tax reform that was discussed in late 1998 and came into operation in January 1999 and January 2000 scheduled a number of tax reductions generating a total DM 2 tax relief in the year. Thus net fiscal consolidation amounted to DM 28 billion in 2000 and DM -15 billion in 2003 (tax reliefs), according to OECD Economic Surveys 1999 (p.58).

Germany 2003

Concerns about the size of the fiscal deficit were widespread in late 2002, as the German Council of Economic Experts⁴⁷ Annual Report 2002/03 makes clear (p. 30): “*Public finance is veering out of control—budgetary consolidation must be resolutely continued. The general government budget deficit of 3.7 percent in 2002 breaches the criteria laid down in the Stability and Growth Pact.*” The Annual Report emphasized the importance of reducing the deficit below the 3 percent of GDP limit of the Stability and Growth Pact (p. 32): “*The rules of the European Stability and Growth Pact are not ‘stupid.’ It was right to adopt the Stability Pact and it is right to continue to uphold it.*” Accordingly, the newly elected government implemented fiscal consolidation in 2003, and the motivation was reducing a large inherited budget deficit. The 2002 OECD Economic Surveys (p. 64) reports that the new government’s consolidation package “*aims at reducing the general government deficit to a level below 3 per cent of GDP in 2003 and reaching balance in the medium term. The package largely consists of various measures generating higher revenues in income, business and indirect taxes. Mainly, this comprises reductions in tax allowances, e.g. for the construction of owner-occupied houses or the netting of business losses with profits, and broadening the base for the turnover tax.*”

The consolidation package included measures expected to generate higher revenues from income, business and indirect taxes and it mainly consisted in “reductions in tax allowances, e.g. for the construction of owner-occupied houses or the netting of business losses with profits, and broadening the base for the turnover tax”. During the year the ecological tax reform was also implemented, raising taxes on non-renewable energies. Finally tax cut scheduled for 2003 as the third step of the 2000 Tax Reform was postponed to 2004 to finance the flood relief fund (Germany Financial Stability Program, December 2002 update). According to DIW Berlin, Wochenbericht Nr. 16/2003, (p. 261 table 3.12), the measures totaled €32.7 billion for 2003 and €- 15 billion (the tax cut postponement) for 2004.

Germany 2004

Fiscal consolidation continued in 2004, motivated, as in 2003, by the need to reduce the deficit to the limits specified in the Stability and Growth Pact (see entry for 2003 above).

The 2004 budget contained a package of spending cuts expected to generate savings of 1.1 percent of GDP. According to IMF Staff Report 2004 (p. 23), the consolidation measures amounted to €23.3 billion for 2004 and €6.7 billion for 2006.

Notes:

- Amounts of spending measures for 2004 were calculated using percentages of GDP as in table in IMF Staff Report 2004 (p. 23) and the OECD 2003 GDP estimate.

- The amounts of spending measures for year 2006 were inferred from the table in IMF Staff Report 2005 (p.27) and from IMF Staff Report 2004 (p.23).

Germany 2006

Fiscal consolidation in 2006 was again motivated by deficit reduction, as the Germany Stability Program 2007 makes clear (p. 20): *“in the course of the consolidation package implemented by the government in 2006, not only was the excessive deficit reduced, but a decisive step was taken towards the sustainability and long-term recovery of the government finances.”*

At the beginning of the year the new coalition government proposed a wide package of fiscal consolidation including spending cuts (mainly in transfers), a 3 percent point increase in VAT in 2007, partly compensated by a decrease in social security contribution starting in 2007 and a series of measures to promote growth (such as new tax expenditures for private household, increase in investment depreciation allowances, increased child benefits, higher spending in infrastructure and R&D) (Germany Financial Stability programme, February 2006 update, p. 16 and OECD Economic Surveys 2006, p. 53). These measure were expected to accomplish deficit reduction starting in 2007 and to have a slight negative effect in 2006. However, taking into account the measures already implemented in the previous year (mostly on the spending side), overall deficit was expected to fall by 0.1 percent on GDP in 2006 (OECD Economic Surveys 2006, p. 53 and IMF Staff Report 2005, p.27). Hence, according to IMF Staff Report 2005 (p.27) and Germany Financial Stability Programme, February 2006 update (p. 16), the measures amounted to €21 billion for year 2007.

Notes:

- According to IMF Staff Report 2006 (p.23) the reduction in deficit was bigger than the expected 0.1 percent, totaling 0.5 percent of GDP. To the extent of our research we are interest in assessing the effects of the original plan announcements, hence we use the estimate in IMF Staff Report 2005.
- We only take into account policy changes. Landesbanken guarantees are not taken into account as exogenous measures.
- Amounts of spending measures were calculated using percentages of GDP as in table in IMF Staff Report 2006 (p. 23) and the OECD 2005 GDP estimate.
- We consider that social security contributions were shared equally between employers and employees.
- The spending measures were calculated using GDP 2006 source OECD Economic Surveys 2007.

Germany 2010

“On 2 December 2009, in line with Article 126 of the TFEU, ECOFIN determined that Germany was running an excessive deficit and issued recommendations regarding the reduction of this deficit. The recommendations set 2011 as the year in which Germany was to begin consolidation, called for an annual average reduction in the structural deficit of at least 0.5% of GDP, and required the deficit to be brought below the 3% of GDP reference value by 2013” (German Stability Programme 2011 Update, p. 6). “Against this background and on account of the requirements arising from the excessive deficit procedure and the European Semester, the core economic and fiscal policy tasks are currently to exit expansive fiscal policy measures and to maintain a course of consolidation that is sustainable and supports growth” (p. 11). The guidelines of the fiscal consolidation are: “to limit government consumption, reduce subsidies, increase incentives and anchor the priority for education and research in budget planning” (p. 13). Germany public debt have increased by 20% since 2007 and has reached the 83% of GDP in 2010. Moreover, a new public balance amendment (Schuldenbremse) requires fiscal measures to bring a reduction of the central government deficit to 0.35% of GDP by 2016. Indeed, the new fiscal rule restricts the cyclically adjusted budget deficit of the federal government to a maximum of 0.35% of GDP and requires balanced cyclically adjusted budgets for the Länder. In addition, the german government planned to increase expenditure for education and research of €12

billion between 2010 and 2013 (German Stability Programme, January 2010 Update, p. 9). Since we don't have information about the annual distribution of the new expenditures, we assume that these were split equally over the four years and we register a budgetary impact of €-3 billion in 2011. Thus the measures put in place in 2010 for years 2011-2013 totaled €-9 billion (€-3 billion each year).

Germany 2011

Following the motivation to reduce the government deficit, the total fiscal consolidation announced in 2011 prescribes €80 billion (3.2% of GDP) of savings until 2014 (Assessment of the 2011 national reform programme and stability programme for Germany, p. 9). European Commission claims not to have information about the complete spending path in annual terms and reports only some details about measures for 2011. IFO Schnelldienst 20/2011 (p. 29) contains a detailed list of measures introduced in 2011 (including the ones mentioned by the European Commission), hence we take this as a source for our calculations.

Germany 2012

“In view of the easing of the budget burden in other ways, the Federal Government has consciously taken the decision to lower its sights in regard to the budget consolidation package and not to offset it by implementing new measures.” (German Stability Programme, 2012 Update, p. 17). IFO Schnelldienst 20/2012 (p. 37) list a series tax cuts and remodulation (in particular pension contributions) and some spending-reducing measures, generating a net consolidation in 2012 but a small expansion in 2013. Their expected budgetary impacts were €-2 billion in 2012 and €-5.2 billion in 2013 on the revenue side and € 15.2 billion and € 2.4 billion in 2013 on the expenditure side (Germany Financial Stability Programme, February 2006 update (p. 16)).

Final notes:

- Notes on 1985-90. This was not a period of policy-induced fiscal consolidation motivated by deficit reduction. In 1985-86, the budget deficit declined, but, in contrast to 1983-84, the decline occurred “without any new legislative measures to reduce spending or increase tax rates” (1986 IMF Recent Economic Developments, p. 18). In 1986, 1988 and 1990, tax cuts occurred, primarily motivated by the government’s decision in December 1984 to cut marginal personal income tax rates for long-run “supply-side” reasons, as the 1987 IMF Recent Economic Developments explains (p. 24): “When the conservative-liberal government took office in 1982, fiscal consolidation and tax reform was high on the economic policy agenda. Tax reform plans were motivated by ‘supply-side’ considerations and the need for lower tax rates was emphasized; but tax reform was initially subordinated to the objective of reducing the government deficit. In December 1984, the government decided upon a tax reduction package of DM 19.5 billion (about 1 percent of GNP) for households to become effective in two stages in 1986 and 1988.” A final third stage of tax cuts occurred in 1990, with the total budgetary impact of the three-year (1986, 1988 and 1990) tax cuts estimated at DM 48 billion (2 percent of GNP) (1989 IMF Staff Report, p. 12). A second motivation for the 1988 tax cut was to stimulate domestic demand as part of Germany’s commitment under the Louvre Accord of February 1987 (1989 IMF Staff Report, p. 12). Finally, although indirect (excise) tax hikes occurred in 1989, these tax hikes were not motivated by deficit reduction; the motivation was to finance additional spending by the European Community (OECD Economic Surveys 1988/1989, p. 50). Overall, during this period, the emphasis of fiscal policy shifted away from fiscal consolidation: “The tax reform package changes the prospective fiscal policy stance in Germany for 1988 and beyond... After the considerable successes in controlling expenditures and reducing deficits in the last few years, the government has now shifted the emphasis of fiscal policy toward the objective of tax reform and reduction” (p. 25).
- Note on 1996. Fiscal consolidation efforts in 1996 were more than offset by tax cuts and spending increases. Regarding the tax cuts, the 1996 IMF Recent Economic Developments (p. 22) reports that “The 1996 Annual Tax Act for the territorial authorities had to accommodate the significant revenue losses resulting from two rulings by the Constitutional Court. The first Court ruling exempted subsistence income from taxation at a cost of DM 14 billion. The second Court ruling eliminated the ‘coal penny’ (Kohlepfennig), an electricity surcharge benefitting coal mining (DM 7 billion).” The combined budgetary impact the measures was DM 9 billion (2+7), or 0.24 percent of GDP,

which did not offset the negative budgetary impact of the tax cuts and spending increases mentioned above. Therefore, we do not record 1996 as a year of fiscal consolidation.

- Note on 2001-2002. A tax reform program motivated by long-run (supply-side) considerations involved tax cuts phased in over 2001-2002 (OECD Economic Surveys 1998-1999, p. 58, and Germany's Fiscal Stability Program of December 2003). For these years, we do not record fiscal consolidation.
- Note on 2005. Spending cuts occurred in 2005, motivated, as in 2003 and 2004, by the need to reduce the deficit to the limits specified in the Stability and Growth Pact. However, the spending cuts—estimated at 0.10 percent of GDP (2005 IMF Staff Report, p. 27)—were not sufficient to offset the budgetary cost of tax cuts associated with the tax reform. Since the tax reform was motivated by supply-side considerations, we subtract its budgetary cost from the savings due to the spending cuts, and conclude that no fiscal consolidation occurred in 2005.
- Note on 2008. A corporate income tax reform and a reduction in unemployment contributions occurred, resulting in no net fiscal consolidation (2008 IMF Staff Report, p.24).
- Note on 2013: there was no net fiscal consolidation in this year and the German government introduced some expansionary measures, as reported in the EC assessment of the 2013 national reform programme and of the stability programme for Germany, p. 10.

IRELAND

Important remarks:

- The sources consulted for Ireland are: IMF Recent Economic Developments, OECD Economic Surveys, Ireland Stability Programme, Budget documents

Ireland 1982

Fiscal consolidation was motivated by a response to the large budget deficit, as the 1983 IMF Recent Economic Developments (p. 7) explains: “*the authorities have recently introduced strong measures to arrest and gradually reverse the deterioration in the public finances... The authorities’ objective is to eliminate the current budget deficit by 1987.*”

The consolidation is implemented by a newly-elected government in order to reduce the budget deficit which was deteriorating. It was “part of a five-year effort to eliminate the current deficit by the end of 1987” (IMF, Recent Economic Developments 1983, p. 52). The measures were based both on spending cuts and tax increases and amounted to Ir£ 0.41 billion.

Ireland 1983

Fiscal consolidation was motivated by the government’s medium-term objective of eliminating the current budget deficit by 1987 (see entry for 1982 above). The primary objective of the 1983 Budget was to reduce the budget deficit, as the 1983 IMF Recent Economic Developments explains (p. 56): “*Within the framework of the long-term goal to redress the imbalance in the public sector finances, the 1983 budget was designed to (1) reduce the current budget deficit to 6¾ per cent of GNP and (2) contain the overall EBR [Exchequer borrowing requirement] to 13 per cent of GNP. The authorities relied principally on tax changes, because of the difficulty of reducing expenditure in the short term.*”

Following the goal of improving the budgetary stance, measures implemented for year 1983 totaled Ir£ 0.41 billion and consisted mostly of tax hikes. Data were taken from IMF, Recent Economic Developments 1983 and in particular Table 29, p. 73.

Notes:

- What regards the embargo on the filling of vacancies in the public service, the teaching staff and the police force are not affected by this policy. It is expected that over 2,000 jobs, about 1 per cent of the affected work force, will remain

unfilled in 1983, generating savings of some Ir£ 35-40 million, compared with Ir£ 25-30 million in 1982 (p. 51). It is not clear whether the measure was originally planned for 1982 and 1983 (and hence should be considered as announced) or it was extended at the beginning of 1983 (and hence should be considered as unexpected).

Ireland 1984

Fiscal consolidation continued to be motivated by the government's medium-term deficit-reduction objective, but the pace of consolidation slowed, as the 1984 IMF Recent Economic Developments explains (p. 51): *“The budget for 1984 was designed to consolidate the gains made during 1982-83 in correcting the imbalance in public finances, without giving a significant deflationary impulse to the economy... The authorities reiterated their view that progress in reducing the deficit was critical to the attainment of the Government's medium-term fiscal objectives. However, in view of the need to support activity, it was decided to moderate the pace of fiscal adjustment.”*

The 1984 episode of fiscal consolidation was based only on tax hikes. Data for the different components are taken from the IMF, Recent Economic Developments 1983 and in particular Table 27, p. 65. The consolidation amounted to Ir£ 50 million.

Ireland 1985

Fiscal consolidation was motivated by medium-term deficit reduction, but the slower pace of consolidation observed since 1984 continued, as the 1985 IMF Recent Economic Developments explains (p. 48): *“Fiscal policy for 1985 was set against the background of increasing concern about the impact of continuing deflation on unemployment and the long-term vitality of the economy. With the publication of the National Plan, the Government formally abandoned its earlier objective of eliminating the current budget deficit by 1987. The Government now aims at reducing the current budget deficit from 7 percent of GNP in 1984 to 5 percent of GNP in 1987.”*

As in 1984, measures were fully coming from the revenue side, totaling Ir£ 24 million. Data about fiscal components are taken from the IMF, Recent Economic Developments 1985 and in particular Table 26, p. 64.

Ireland 1986

Fiscal consolidation was motivated by the need to reduce the budget deficit, as the 1986 IMF Recent Economic Developments explains (p. 24): *“The 1986 budget aimed to cut back the current budget deficit and the EBR, as percentages of GNP, but not to the extent implied in the National Plan as that was considered too deflationary; the current budget deficit was to be reduced to 7.4 percent of GNP.”*

The measures amounted to Ir£ 110 million and were solely implemented on the revenue side, with a large portion of the measures coming from the increase in VAT. Data about fiscal components are taken from IMF, Recent Economic Developments 1987 and in particular from Table 18, p. 37.

Notes:

- Notice that the total amount of revenues is not consistent with Devries et al. (2011) since the total in Table 18 is wrong and does not correspond to the summation of all the listed measures. Therefore, we decided to take a different aggregate and use the components of the Table as we did for the previous entries.

Ireland 1987

Fiscal consolidation was motivated by a deficit reduction, as the 1990 IMF Recent Economic Developments explains (p. 21): *“since 1987 a very high priority has been assigned to strengthening public finances. The shift was first manifest in the 1987 budget, introduced shortly after a new Government came into office early in that year.”* The medium-term budgetary objective, announced as part of the October 1987 “Programme for National Recovery,” was to reduce the Exchequer Borrowing Requirement to 5-7 percent of GNP by 1990 (p. 21). The need to reduce the budget deficit and government spending was perceived as urgent, as the 1987 IMF Staff Report explains (p. 6): *“Officials stressed that the urgency of the budgetary situation and the belief that the tax burden was already at a high level have made it necessary to consider reductions on a broad range of expenditure categories, including health, education, social welfare, public employment, and the public capital program.”*

The measures are centered both on public spending cuts and tax hikes, totaling Ir£ 340 million. Data about disaggregated components are taken from the OECD Economic Surveys 1987-1988 and from the 1987 Budget.

Ireland 1988

Fiscal consolidation was motivated by deficit reduction as in 1987, as the 1990 IMF Recent Economic Developments (p. 21) explains: *“The 1988 budget aimed at consolidating the progress made in the previous year, when the EBR was reduced by 3 percentage points to nearly 10.0 percent of GNP... The budgeted target for the EBR was 7.8 percent of GNP, a decline of over 2 percentage points.”*

The episode is entirely based on spending cuts totaling Ir£ 470 million. Data about fiscal components are taken from OECD Economic Surveys 1988/1989, p. 17.

Ireland 2008

The adjustment is characterized by four different steps which took place over two following years and was motivated by the need to reduce the budget deficit. The first step is characterized by measures introduced in July 2008 in order to contain public spending. Those measures prescribed consolidation of €0.44 billion in 2008 and €0.56 billion in 2009. The rest of the measures were attributed to 2009. Data about components are taken from the Document of Stability 2009 (p. C37), 2009 Budget (<http://budget.gov.ie/Budgets/2009/Summary.aspx>) and April 2009 Supplementary Budget (see <http://budget.gov.ie/Budgets/2009Supp/Summary.aspx>).

Ireland 2009

Fiscal consolidation was motivated by the need to reduce the budget deficit, as the April 2009 Budget Statement of the Minister for Finance made clear (p. 4): *“The problem is our expenditure base is too high and our revenue base is too low. If we fail, refuse or neglect to address this structural problem we will condemn our generation and the next to the folly of excessive borrowing. Already, the share of tax revenues that go to service the national debt has risen from 5% in 2007 to more than 11% this year. As we accumulate more and more public debt, this figure increases. This is dead money that should be used to improve vital public services.”* The government also committed to reducing the budget deficit to within the limits of the EU Stability and Growth Pact over the medium term, as the December 2009 Ireland Stability Program submitted by the authorities to the European Commission on 9 December 2009 explains (p.32): *“The Irish authorities have made commitments aimed at reducing the general government deficit below 3 percent of GDP by 2014.”*

Following the initiative of 2008, the second step is the 2009 Budget which was approved in October 2008 and prescribed revenues increases. In February 2009 further measures to contain public spending were announced and introduced cuts in public-sector wages. Finally, the Supplementary Budget of April 2009 prescribed further spending cuts and new tax hikes.

Ireland 2010

“Budget 2010 sets out the budgetary measures being taken to stabilize the deficit at the 2009 level in 2010 and the medium-term consolidation strategy for its progressive reduction in subsequent years” (Ireland Stability Programme Update, December 2009, p. 6). “In framing Budget 2010, the Government focused on curbing spending as expenditure needs to adjust to the revenue base which has been reduced as a result of the overall contraction of the economy and the loss of certain income streams. In addition, in formulating policy the Government took on board evidence from international organizations, such as the EU Commission, the OECD and the IMF, as well as the relevant economic literature which indicates that consolidation driven by cuts in expenditure is more successful in reducing deficits than consolidation based on tax increases. Past Irish experience also supports this view and suggests that confidence is more quickly restored when adjustment is achieved by cutting expenditure rather than by tax increases” (Ireland Stability Programme Update, December 2009, p. 15). “The strategy behind Ireland’s medium-term economic and fiscal plan is based around three inter-related issues: (i) restoring economic competitiveness, the basis of future economic growth, by taking responsible action on fiscal and incomes policies; (ii) inspiring confidence, both internationally and domestically, that the deterioration in the public finances has been arrested; (iii) restoring Government expenditures and revenues to more sustainable levels, thus ensuring that debt does not rise to unsustainable levels” (p.15). The 2010 Budget delivered an overall consolidation package of €4.07 billion for 2010 and €0.24 billion for 2011 (Ireland Stability Programme Update, December 2009, p. 36).

Notes:

- Expenditure measures include €94 million allocated to the Family Income Supplement and the Increase for a Qualified Child (<http://www.budget.gov.ie/Budgets/2010/Summary.aspx#SectionII>). Apart from these expenditure increases, all other measures on the expenditure side entail cuts.

Ireland 2011

“The overriding aim of the Government’s medium-term economic and budgetary strategy is to return the economy to sustainable employment growth. A key condition for doing so is to restore order to the public finances and ensure the sustainability of the Government’s debt position” (Ireland Stability Programme Update, April 2011, p. 5). Budget 2011 (December 2010) delivered an overall package of about €5.5 billion for 2011 and €2 billion for 2012 (Ireland Stability Programme Update, April 2011, p. 48).

Notes:

- We excluded the measures such as higher dividends and state asset sales since we consider them extraordinary measures that should not be taken into account consistently with Devries et al. (2011).

Ireland 2012

“The Irish Government remains firmly committed to restoring sustainability of the public finances through the implementation of further budgetary consolidation and growth-enhancing policy measures aimed at reducing the GGB below the -3% of GDP threshold by end 2015” (Ireland Stability

Programme Update, April 2012, p. 19). Fiscal consolidation amounted to €3.2 billion for 2012 and €0.85 billion for 2013 (Economic and Fiscal Outlook 2012, p. 13).

Ireland 2013

“In relation to the public finances, the policy objective remains the correction of the excessive general government deficit by 2015, as recommended by the ECOFIN Council in late-2010. All of the interim annual deficit ceilings set by the Council have been met, and the Government remains committed to bringing the deficit below 3 per cent of GDP within the stated time horizon” (Ireland Stability Programme Update, April 2013, p. 5). Fiscal consolidation amounted to €2.65 billion for 2013 and €1 billion for 2014 (p. 6).

Ireland 2014

“In addition to positioning the State to exit the EU/IMF Programme successfully, Budget 2014 represents the penultimate step in bringing Ireland’s deficit below the 3% of GDP target. Over the last number of years, Ireland has continued with steadfast implementation of necessary fiscal consolidation and structural reforms. 2014 represents a return to normality whereby Ireland will be funding itself from the markets and will not be reliant on external funding arrangements.” (Budget 2014 Economic and Fiscal Outlook).

According to Summary Of 2014 Budget, Expenditure Allocations 2014-2016 and Economic and Fiscal Outlook (Budget 2014), the measures adopted in 2014 totaled €1.6 billion for 2014 and €-60 million for 2015.

Final notes:

- Note on 1989. The 1989 Budget introduced a number of tax cuts and spending increases (1990 IMF Recent Economic Developments, pp. 22-24).
- Note on 2008. The spending cuts of €440 million introduced in July 2008 were offset by the cost of a number of expansionary initiatives included in the initial 2008 Budget, including income tax cuts which took effect from 1 January 2008 and thus are not considered exogenous (see 2008 Budget, Section I Taxation Measures, p. 2).

ITALY

Important remark:

- The sources consulted for Italy are: various issues of Banca d'Italia Assemblea Generale Ordinaria dei Partecipanti, Banca d'Italia Bollettino Economico, Bank of Italy Annual Report, IMF Background Economic Development and Issues, IMF Recent Economic Developments, Italy's update to Stability Program and OECD Economic Surveys.

Italy 1991

The main motivation behind the 1991 fiscal consolidation was government debt reduction, as explained by the Bank of Italy Annual Report 1990 (p. 69): *“In May 1990 the Economic and Financial Planning Document for 1991-93 confirmed the objective of beginning to reduce the ratio of public debt to GDP by 1993.”* After the 1991 Budget fixed in September 1990, two different fiscal adjustments were implemented during the year. In May 1991, the first adjustment included an equal

amount of higher taxes and lower expenditure (OECD Economic Surveys 1992 p.38). The second set of measures was announced in September and October 1991 and aimed at curbing the estimated deficit on unchanged policies by rising additional taxes (OECD Economic Surveys 1992, p. 38).

If we consider all of the policies announced for 1991, we can estimate that one third of the predicted effects were not realized. Of these, L 10 trillion were policies not approved by the parliament and L 15 trillion were lower yields caused by a miscalculation of the taxpayer's behaviour (Bollettino Economico 18 feb 1992, p.37). Devries et al. (2011) takes as a reference the actual revenues for 1991 as a whole with: “*budgetary tax and social security receipts [of] 25 trillion lire, [and] reduced expenditure by 16 trillion*” (Bank of Italy Annual Report 1991, p.74). However, since within the 16 trillion of expenditure cuts there are L 3 trillion from direct reimbursement of loans raised by state-controlled enterprises and other measures (which we do not take into account in this research), our estimates for expenditure cuts is of 13 billion, differently from Devries et al. (2011). The decomposition is closer, in this case, to the actual returns of the single policies, including all the revisions implemented during the year. The decomposition of policies on both revenue and expenditure side was done according to Banca d'Italia Assemblea Generale Ordinaria Dei Partecipanti 1991, p.137.

Notes:

- The first fiscal adjustment (May 1991) needed to compensate L 14.2 trillion due to lower-than-announced revenues coming from 1990 and higher-than-announced inflation (Bollettino Economico 18 feb 1992, p.37). “*During the second quarter of 1991, it became apparent that interest payments and some primary expenditures (particularly public wages) were rising faster than announced while tax receipts were not in line with normative budget projections on account of both the marked deceleration of the economy and the persistence of tax evasion. In May, the Government, while approving a new package, estimated to yield Lit 14 trillion, reaffirmed the initial CGBR target, as part of the medium-term strategy set forth in the Documento di programmazione (DP91) approved at the same time*”. (IMF Background Economic Developments - Italy - 1992).
- The second deficit overshoot (i.e. the one driving the policy responses announced in September and October 1991) stemmed from unexpectedly low yields of the September Budget and by the decrease of direct taxes flowed by entrepreneurs and self-employed (Bollettino Economico 18 feb 1992, p.37).
- As mentioned above, some policies announced for 1991 (L 10 tr + L 15 tr) were not realized due to various reasons. In this context, it is particularly difficult to isolate the announced revenues effects of the single fiscal packages because often one corrects and overlaps the other and the expectations of the taxpayer vary substantially during the current year. Moreover, only at the end of the year it was possible to understand the composition of the changes in budget, when the actual revenue effect was at that point quite clear.
- Concerning the prepayment of some direct taxes (IRPEF and ILOR) for natural persons (unexpected L 2 tr in 1991), Devries et al. (2011) and IMF Recent Economic Developments 1992 state that the prepayment of direct taxes included IRPEG as well, a direct corporate tax. However, Bank of Italy, Assemblea Generale Ordinaria Dei Partecipanti 1991, p.137 and the Decree Law of 1 October 1991 art. 1, comma 4 state that the prepayment of 98 percent of the total liable amount only involved IRPEF and ILOR, while the prepayment of 98 percent of IRPEG was already in place since 1989.
- The optional revaluation of company assets is a clear example of misalignment between announced and actual revenue. Indeed, this policy was supposed to return L 4.4 trillion but instead gathered only L 1.1 trillion (Banca d'Italia, Bollettino Economico, October 1990) thus triggering part of the September 1991 fiscal adjustment (Banca d'Italia, Bollettino Economico, February 1992 p.37).
- Differently from Devries et al. p.50 and Bollettino Economico Oct 1991 p.41, that record L 5.8 tn coming from the shortening of delays on the payment of VAT, we record L 4.2 trillion.
- Notice that some one-off measures introduced in 1991 expired in 1992 (in the excel file, a one-off measure is denoted by an unexpected tax increase in 1991 with a reversal of the same amount announced for the next year, i.e. 1992). Devries et al. (2011) state that these one-off measures included “*the shortening of the delays on the payment of VAT (L 5.8 trillion) and customs duties (L 2.1 trillion), the prepayment of some direct taxes (acconti on IRPEF, IRPEG, and ILOR for L 5.5 trillion), the moving forward to 1991 of the ten-year INVIM (L 5 trillion), the slowing down in the reimbursement of VAT (L 1 trillion)*.” However the latter figures correspond to the announced returns, which were corrected and adjusted several times during the year, as explained in entry 1991. Indeed, according to Banca d'Italia Assemblea Generale Ordinaria Dei Partecipanti 1991, p.138, only L 15 trillion of the total tax shocks had in practice a one-off nature. For this reasons, we revised the amounts indicated by Devries et al. (2011) in L 4.2 trillion from shortening of the delays on the payment of VAT, L 2.1 trillion from prepayment of custom duties, L 2 trillion from

the prepayment of some taxes for natural persons, L 1.1 trillion from the optional revaluation of company assets, L 4 trillion from the prepayment of the ten-year INVIM and L 1.6 trillion from the amnesty included in May 1991.

Italy 1992

Fiscal consolidation was performed in order to reduce the deficit and the debt-to-GDP ratio as the Bank of Italy Annual Report 1991 (p. 76) explains, “*In May 1991 the Economic and Financial Planning Document for 1992-94 confirmed the objective of beginning to reduce the ratio of public debt to GDP by 1993.*” Two rounds of deficit-driven fiscal consolidations occurred in 1992: one fixed in the 1992 Budget and another in the July Emergency Budget (1994 OECD Economic Surveys, Table 7, p. 39). Differently from Devries et al. (2011) we consider that the first Budget introduced tax hikes of L 22.6 trillion and spending cuts of L 18 trillion. The July Emergency Budget, introduced by a new government instead included L 16.2 trillion of revenue increases and L 6.8 trillion of lower spending. Our decomposition of fiscal measures followed Bollettino Economico N. 18.

Notes:

- The motivations for the July Emergency Budget were a downward revision from 2.7 to 1.8 of GDP growth, higher-than-announced interest payments and an increase of almost all of the expenditure components (Bollettino Economico N. 19 October 1992, p.41).
- According to Devries et al. (2011) the 1992 Budget introduced tax hikes of L 21.5 trillion (1.4 percent of GDP), and primary spending cuts worth Lit 20.8 trillion (1.38 percent of GDP). The July Emergency Budget, introduced by a new government included tax increases worth Lit 21.8 trillion (1.45 percent of GDP) and spending cuts worth Lit 8.2 trillion (0.54 percent of GDP). However, the 1992 Budget was slightly adjusted at the end of 1991 and actually included L 22.6 trillion of revenue increases and L 18 trillion of expenditure cuts (excluding savings on interests) (Bollettino Economico N. 18, February 1992, p. 60). Also the second adjustment of L 21.8 trillion does not find correspondence in any of the Italian authorities' documents and was actually equal to L 16.2 trillion of tax hikes and L 6.8 trillion of higher expenditures (Relazione previsionale e programmatica per il 1993, Bollettino Economico N. 19, October 1992, p.47 and Banca d'Italia, Assemblea Generale dei Partecipanti 1992, p. 130).

Ideally, for the years 1992-93, we should take 1.5 percent of GDP as the impact of one-off measures. According to Banca d'Italia Assemblea Generale Ordinaria Dei Partecipanti 1993 (p. 145), one-off measures had an impact on the 1993 budget worth 1.20 percent of GDP and comprised taxes on buildings, bank deposits and the majority of the amnesty schemes which were equal respectively to L 6.4 trillion, L 5.1 trillion and L 11 trillion; totaling L 22.5 trillion (1.5 percent of GDP). In order to reconcile these numbers with the impact of 1.2 percent of GDP, we considered that probably only L 6.6 trillion were actually gathered from the condonation schemes. Moreover, as explained in the entry for Italy 1991, we should add to this negative impact the payment of INVIM (L 4 trillions) which is not included in the reports of the Bank of Italy but was actually supposed to be paid in 1993.

Italy 1993

“*Following the lira's exit from the Exchange Rate Mechanism in September 1992, the authorities announced a new three-year deficit reduction plan*” (Devries et al., referring to 1994 OECD Economic Surveys, p. 44). In 1993, fiscal consolidation was implemented in two rounds. The second round was due to new fiscal concerns coming from weakening growth and low proceeds from privatizations. The tax shocks were decomposed according to Bollettino Economico N. 19 p. 72. On the expenditure side, the first round of fiscal policies included about L 42 trillion of expenditure cuts (Bollettino Economico N. 19 p. 72) and the second one L 5.6 trillion of fewer transfers (OECD 1994 Economic Survey p.47).

Notes:

- Notice that Devries et al. (2011) state that the first round implemented tax hikes of L 42.5 trillion. However, the actual tax correction differed from that figure, since the Parliament introduced some small modifications at the beginning of the year (Bollettino Economico N. 19 p. 72).
- The following statement expresses the rationale behind the second round of consolidation measures: *“Faced with renewed fiscal slippage caused by flagging economic activity and a lack of privatization proceeds, the new Government in May introduced additional measures of fiscal restraint”* OECD 1994 Economic Survey, p. 47.
- Notice that on the expenditure side, Devries et al. (2011) wrongly refers to a L 31 trillion expenditure-based fiscal consolidation from 1994 OECD Economic Surveys (p.44-45) that actually corresponds to the primary deficit surplus in 1991.

Italy 1994

Fiscal consolidation was motivated by the government’s multi-year deficit-reduction program (Devries et al., 2011). The adjustment in 1994 was “much smaller than for 1993” (OECD Economic Surveys 1994, p. 50). Fiscal adjustments on the spending and revenue side are disaggregated according to Bollettino Economico, October 1994.

Notes:

- The low amount of tax hikes, together with the decision not to compensate entirely the expiration of previously implemented one-off revenues, was justified by the fear to compromise the cyclical growth recovery (Banca d'Italia, Assemblée Generale dei Partecipanti 1994, p.151).
- Notice that we excluded revenues from public entities divestments like INPS, INAIL and INPDAP.

Italy 1995

The goal of meeting the Maastricht criterion of a deficit-to-GDP ratio of less than 3 percent by 1998 motivated fiscal consolidation in 1995 (1995 IMF Staff Report, p. 1). Two rounds of fiscal consolidation occurred. The first set of measures was included in the Budget Law approved by parliament in December 1994 and the second round of fiscal consolidation was proposed by the new Dini government in February 1995. On the tax side, we classified adjustments using OECD Economic Surveys 1996, Table A2 p. 144. On the expenditure side, the measures that were implemented were collected in OECD Economic Surveys 1996, Table A3 p. 145.

Notes:

- In OECD Economic Survey 1996 there is a slight discrepancy between data reported in the text and in the attached tables. Devries et al. use data in the text but we decided to base our analysis on the data in the tables since they are decomposed.
- The second round of fiscal consolidation became necessary after the revision of expectations on interest rates: *“Given overly optimistic assumptions about interest rates, the state sector deficit target came to be viewed as being unattainable already at the beginning of the year, prompting the new Dini government to adopt corrective budgetary measures worth L 20.8 trillion, or 1.1 per cent of GDP, in February 1995”* (OECD Economic Surveys 1996 p. 44).

Italy 1996

“As in previous years, fiscal consolidation was motivated by reducing the deficit to meet the Maastricht criteria by 1998” (Devries et al., 2011). Two rounds of fiscal consolidation occurred in 1996: the 1996 Budget Law that called for spending cuts of L 10 trillion (0.52 percent of GDP) as well as tax hikes of L 22.5 trillion (1.16 percent of GDP), and an additional set of measures worth L 16 trillion announced by the new government in June. Some measures on the revenue side were of a one-off nature. Overall, we classified all fiscal adjustments according to the Bollettino Economico di Banca d'Italia (n°26, Febbraio 1996, pp. 68-69) for the 1996 Budget Law, and to OECD Economic Surveys 1997 (p. 60) for the additional measures.

Notes:

- The rationale behind the additional measures is expressed in the following sentence: “*Given the unexpected cyclical downswing, the fiscal targets moved quickly out of reach, demanding additional corrective action under the 1996 financial law. Correspondingly, the new government, which took office in mid-May, announced an additional L 16 trillion of measures in June*” (OECD Economic Surveys 1997, p.60).
- On the spending side, all the data refers to Public Sector (“Settore Pubblico”).

Italy 1997

The motivation behind the fiscal adjustment measures introduced in 1997 was again the need to reduce the deficit-to-GDP ratio in order to meet the Maastricht criteria, as suggested by the 1997 IMF Staff Report reports (pp. 4-5): “*The conduct of macroeconomic policies in 1997 was guided by one clear beacon: ensuring Italy’s presence among the founding members of EMU... Accordingly, the fiscal retrenchment measures incorporated in the 1997 budget were almost doubled from their originally envisaged size*” (1997 IMF Staff Report, pp. 4-5). The consolidation effort consisted in one “ordinary” fiscal adjustment, based upon June 1996 three year medium term plan (Documento di Programmazione Economico-Finanziaria), and one supplementary deficit cut (“Piano per l’Europa”) consisting in a one-year (so expiring in 1998) “Europa tax”, a progressive income tax, generating revenues of L 11.5 trillion (0.6 percent of GDP) and additional financial adjustments as reclassification of interest payments that are not recorded as spending cuts or tax hikes. Over the year, we classified fiscal adjustments according to OECD Economic Surveys 1997 (pp. 61-65).

Notes:

- The supplementary fiscal adjustment was aimed at meeting the Maastricht criteria in 1997 (OECD Economic Surveys 1997, p. 146).
- The cuts consisting in lower transfers to local authorities were paired with the devolution of some tax authority. Hence they may have resulted in higher local taxes rather than lower spending, but it depends on the decisions undertaken by local authorities.

Italy 1998

According to Devries et al. (2011), “*fiscal consolidation in 1998 was motivated by deficit reduction as in 1997. The government’s deficit reduction plan targeted a deficit-to-GDP ratio of 1 percent of GDP by 2001 (1998/1999 OECD Economic Surveys, p. 53)*”. The measures contained in the 1998 budget proposal (unexpected adjustments in 1998) consisted of L 12 trillion of net spending cuts and L 13 trillion of revenue increases. Measures were classified according to the OECD Economic Surveys 1999 (p. 54).

Italy 2004

“*Fiscal consolidation in 2004 was motivated by reducing the fiscal deficit to below the 3 percent of GDP limit of the Stability and Growth Pact*” Devries et al. (2011). The first set of structural and one-off measures was contained in the 2004 Budget Law and called for both tax hikes and spending cuts. An additional set of measures approved in mid-July consisted of further reductions in expenditures (€4.3 bn), €1.3 billion increase in revenues and €2 billion of administrative measures. We exclude savings of €5.5 billion coming from privatization and raising value of public goods and government real estate sales and €0.8 billion from the transformation of “Cassa depositi e prestiti” into a private company. In addition, according to Devries et al., no one-off measure was implemented in 2004. However, after an accurate analysis we identified one off measures for €4 billion consisting in € 0.872 billion Taxes on Income, Profits and Capital Gains and €3.130 billion Taxes on property (Italy's Stability Program Update, November 2003, pp. 23-24).

According to Italy's Stability Program Update (November 2003, pp. 23-24) for the 2004 budget and to the Decree-Law 12.07.2004 n° 168 for the additional consolidation, we classified all of our measures.

Notes:

- The additional measures approved in mid-July become necessary since “*The performance of the public finances in the early months of 2004 suggested that an overshoot of the objective was likely, as the state sector borrowing requirement was considerably larger than in 2003*” (Bank of Italy Annual Report 2004, p. 118). The government decided to propose the additional consolidation to keep the deficit below the 3 percent threshold and avoid the European Council warning.

Italy 2005

The motivation behind the fiscal measures in 2005 was to “*keep the deficit within the limit established by the European budgetary rules*” (2005 Bank of Italy Annual Report, p. 102). Budget measures were presented by the government and approved by the parliament in December 1994. We exclude €1.5 from financial asset management. We classified our measures according to Italy's Stability program update (November 2004, pp. 24-26).

Notes:

- In Devries et al. there is an inconsistency between the source they cite (Bank of Italy Annual Report, 2005) and the data they use. Thus we decided to use decomposed data from Italy's stability Program update, November 2004, consistent with Bank of Italy aggregate data.
- Additional and one-off revenues of 0.5 percent of GDP (Bank of Italy annual report 2005) came from sales of public buildings. Following Devries et al. we don't include these operations in the analysis since they are not spending cuts nor tax hikes.

Italy 2006

As explained by the 2006 Bank of Italy Annual Report (p. 88), the motivation for the 2006 fiscal corrections was to meet the rules set at the EU level and hence reduce the budgetary deficit: “*In July 2005 the EU Council established that an excessive deficit existed in Italy and called for the Government to reduce it below the 3 per cent limit by 2007, with a significant adjustment already in 2006.*”

The fiscal consolidation measures were composed by spending and revenue adjustments, which were partially offset by reforms implemented to boost economic growth over the long-run. The measures that aimed at enhancing economic growth were composed, on the revenue side, by a reduction of labour costs through a cut in social contributions, while on the spending side by measures aimed at supporting the income of families, rearing children and reallocating resources to public employment. The data are taken from the “Italy's Stability Programme, December 2005” and the records largely refer to Table 7, p.27.

Italy 2007

The motivation behind fiscal consolidation was “*to bring the public finance trends – notably current expenditure – back on a balanced and sustainable path*” (Italy Stability Program December 2006, p. 24). The fiscal adjustment was similar to the one conducted the year before, with both spending and revenue measures (Italy Stability Program December 2006, p. 25). These measures were partially offset by spending increases and tax reductions that aimed at achieving greater social equity and promoting economic growth (Public real estate assets management generated a revenues increase of

€0.5 billion). The data are taken from the Italy's Stability Programme, December 2006 and the records largely refer to Table 8, p.25.

Notes:

- We include the € 1.1 bn tax extensions in spending measures, since in Table 8 (p. 25) of the Italy's Stability Programme, December 2006, it is listed under *Higher expenditures*.

Italy 2009

2009 was a year characterized by “*measures fending off the impact of the intense financial and real crisis*” (Italy Stability Programme, February 2009, p. 1). Given the implicit endogeneity of the adjustments implemented in that year, we do not include them in our analysis. Nevertheless, we find and include fiscal measures announced in 2009 but implemented in the next years.

Italy 2010

As stated in the Italy Stability Programme, January 2010 (p. 32), the measures implemented in 2010 (some of which were announced in the previous year), which improved the primary balance (i.e. lower expenditures and higher revenues), also intended “*to prevent a worsening of the deficit- and debt-to-GDP ratios*”. However, part of the fiscal measures “*focused on reallocating resources to measures that would have the strongest positive impact on the economy in the short term, so as to counter the most painful social and economic consequences of the crisis, while waiting for evidence of a solid economic recovery*”. Thus, we conclude that the specific measures envisaged to fend off the impact of the crisis and to sustain growth are endogenous and we exclude them from our estimates. Another reason why this year should be included in the analysis is that Italy was under Excessive Deficit Procedure since December 2009, hence any fiscal policy decision was under a strict obligation to bring down the deficit at 3% by 2012 (Council Decision of 19 January 2010 on the existence of an excessive deficit in Italy).

As for strictly unexpected 2010 measures, the 2010 Budget Law included one-off revenues for around 4 billion euros (0.26% of GDP) from the increased IRPEF balance and the recovery of illegal State subsidies (Italy Stability Programme, January 2010, p. 38). There were also substantial measures anticipated in 2010 for 2011 and 2012.

Notes:

- For details about the composition of the adjustment, see page 35 and 38 of Italy Stability Programme (January 2010). Note that the tax hike and the expenditure cuts result from the difference in shock between 2009 and 2010 in the Decree law 78/2009 and taking into account of the compositional change introduced later in DL 191/2009 (See page 35 and 38). None of the fiscal expansionary measures were taken into account because considered endogenous.

Italy 2011

As stated in Italy Stability Programme 2011: “*The consensus reached is that the principal objective of economic policies - a fair and sustainable growth - is not attainable, except with the essential requirement, and within the context, of financial stability and solidity*”. And again: “*The measures with the 2011-2013 budget package are acknowledged for the purpose of ensuring the planned decrease in the deficit with the timetable to which the Government has committed*” (Italy Stability Programme, April 2011, pp. iv and 2).

Notes:

- The DL 201/2011 provided, as of October 2012, an increase of two percentage points to the existing VAT rates of 10 percent and 21 per cent, and another increase of one-half percentage point as of 2014. However, Table VI.7 p.63 of Italy Stability Programme 2012 does not report these announced increases in taxes for 2013 and 2014. The reasons why these measures were not included directly in the Table VI.7 is that these increases were supposed to be implemented only if the government did not find alternative spending cuts to avoid this increase (see Indagine conoscitiva sul decreto legge recante disposizioni urgenti per la crescita, l'equità e il consolidamento dei conti pubblici by Visco and footnote 5 at http://documenti.camera.it/leg16/dossier/Testi/d016.htm#_ftn5). Hence, we do not include these VAT rate increases as announcements for the following years because their introduction was very uncertain, not even the budget documents provided precise estimates of the expected returns and they were indeed avoided for the most part.

Italy 2012

The plan for consolidation was “*based on two elements: fiscal consolidation and promotion of growth. And an agenda of reforms based on three underlying principles: rigor, growth and equity*” (Italy Stability Programme, April 2012, p. V). Several measures were announced in 2012 to be implemented in the next years. In July 2012, a new Decree Law (95/2012) was introduced, mainly to find resources necessary to avoid an increase in VAT rates. This turns in our model to an unexpected shock of €4 billion in spending cuts in 2012, and €3 billion both in 2013 and 2014 (see Tavola VI.4 of Documento di Economia e Finanza 2013).

Notes:

- Regarding the unexpected spending cuts in 2012, we do not introduce the “higher revenues” due to the delayed implementation of VAT raises because previous budget of the governments did not included them as announced shocks and hence it would be a mistake to count them as lower revenue if before it was not introduced as announced higher revenue.

Italy 2013

The fiscal plan for 2013 aimed at maintaining the stability of public balances, easing off fiscal pressure and providing for a structural correction of public spending trends. The effects of the 2013 budget are computed in the official documentation (see Tavola VI.5 p.71 of Documento di Economia e Finanza 2013) as if the delayed increase in VAT rate (to July 2013) was a decrease in tax, and we cannot do the same because we did not include these measures as an announcement in previous years (see footnote above for the entry Italy 2012). Hence, we compute the total amount of this budget by dropping the “sterilization of the VAT increase”. The increase in VAT rate was further delayed from July 2013 to October 2013 by DL n.76 of 2013. To cover the €1 billion expected revenues from VAT of one quarter, the government implemented higher excise taxes and an increase in advance income tax payments. In October 2013 a new decree to delay the VAT increase until 2014 was in preparation when the government fell and the increase from 21 to 22 percent of the VAT rate was indeed implemented. The annual amount of this measure was computed to be of €4 billion. If we only look at the impact in 2013, we list this unexpected introduction as an additional €1 billion tax shock. The remaining €3 billion correction is recorded as an announced adjustment for 2014.

Notes:

- For the unexpected € 1 bn tax shock introduced by the 2013 VAT increase, we refer to <http://www.ilsole24ore.com/art/notizie/2013-06-26/tassa-sigarette-elettroniche-acconti-121721.shtml?uuid=AbWWac8H&fromSearch>.

Italy 2014

As expressed in the Documento di Economia e Finanza 2014, Section I: Italy’s Stability Programme (pg. IV), “*The [structural] reform strategy hinges on fiscal consolidation: for a highly indebted*

country such as Italy, budget stability represents an indispensable precondition for triggering solid and long-lasting growth.” Hence, several fiscal consolidation measures were announced in 2014. Expansionary and exogenous measures were also introduced, where the exogeneity comes from their objective of sustaining long-run growth.

JAPAN

Important remarks:

- In Japan the fiscal year is April-March.
- The sources consulted for Japan are: the IMF Recent Economic Developments, IMF Staff Reports, OECD Economic Surveys.

Japan 1979

The adjustment is motivated by the will to reduce the budget deficit. It is based on tax hikes, which mostly fell on indirect taxes, and on tax cuts reductions. Besides the unexpected measures implemented in 1979, there were announcements of fiscal adjustments to be implemented in the next two years. Data about fiscal components are taken from the IMF Recent Economic Developments 1980, p. 37, Table 18.

Notes:

- Regarding the ¥ -8.17 billion dependence allowance for the aged: “For taxpayers who live with aged dependents who are lineal ascendants, a deduction from taxable income of Y 400,000 will be allowed for each such dependent, instead of the Y 350,000 deduction normally allowed for aged dependents”.

Japan 1980

The adjustment is motivated by the reduction of primary deficit: “in 1980/81 the Government, for the first time since 1973-74, shifted to a less expansionary fiscal stance as part of its commitment to a gradual reduction in the budget deficit during the medium term.” (IMF, Recent Economic Developments 1981, p. 40). The new measures are centered on tax hikes and tax credit reductions. Also, fiscal corrections for next year were announced. Data about fiscal components are from the IMF, Recent Economic Developments 1981, p. 45, Table 19.

Notes:

- There are tax measures that are excluded: “Various special taxation measures applicable to enterprises, such as accelerated depreciation, were either curtailed or eliminated. There was also an increase in the Promotion of Power Resources Development Tax from Y 85 to Y 300 per 1,000 kilowatt hours of electricity. This was estimated to increase tax revenue by Y 83 billion during 1980/81. These funds go into a special account for developing substitute energy sources for petroleum.”
- For the measure about “curtailment of tax preferences for enterprises, reduction of long-term capital gains tax on housing”, the 1980 Budget lists the following measures: “Curtailement and repeal of special tax preferences for enterprises [...] Measures for promoting the supply of housing, land, and alleviation of taxation on long-term capital gains derived from certain transfers of land etc. is proposed. [...] Measures for development of alternative energy resources”.

Japan 1981

The motivation behind the adjustment is “to move decisively toward restoring fiscal discipline and to eliminate the issuance of deficit-financing bonds by 1984/85” (IMF, Recent Economic Developments

1982, p. 41). The new measures fell entirely on tax hikes (mainly corporate and indirect taxes) and tax credit cuts. Data about components are from the IMF Recent Economic Developments, p. 42.

Japan 1982

The adjustment was motivated by deficit reduction: “*The initial framework for the 1982/83 budget indicates an unprecedented effort to curtail the increase in government expenditure, but somewhat less emphasis than in the previous year on increasing tax revenue*” (IMF, Recent Economic Developments 1983). Spending cuts fell mainly on public salaries and investments. There are some additional spending measures that are not taken into account by Devries et al. (2011). They are: “*reduction in expenditures amounting to ¥ 3 trillion, half of which resulted primarily from a reduction in the transfer of national tax revenue to Local authorities, reflecting the downward revision of tax receipt estimates. In addition, the annual transfer of funds from the general account to the sinking fund amounting to ¥ 1.2 trillion was recalled in an effort to reduce expenditures*”. We exclude them given that they are “under the line” measures as indicated in footnote 1 and 2 of IMF Recent Economic Developments 1983, p. 63. Data about components are taken from IMF, Recent Economic Developments 1983, p. 63; and OECD Economic Surveys 1981/1982, p. 36.

Notes:

- Administrative expenditure cuts amounting to ¥ 45.5 billion come from (400-322)*7/12 (see footnote 3 p. 63).
- The freeze on civil servants’ pay increases of ¥ 187.83 billion comes from 322*7/12 (see footnote 3 p. 63).
- As for the 0.3 % cut in public works appropriations of ¥ 1579.46 billion, we computed the amount in Yen by taking the percentages over GDP of the whole plan provided by Devries et al.

Japan 1983

The adjustment in 1983 is characterized by additional cuts in public investments due to the freeze of nominal spending for public works (OECD Economic Surveys 1982/1983, p. 30). This is a follow-up measure of what was implemented the year before, motivated again by the will to reduce the deficit.

Japan 1997

The main objective of the FY 1997 Budget is “*to reverse some of the exceptional stimulus measures taken to support activity during the downturn*” (IMF Staff Reports 1997, p. 19). The deficit had grown since the beginning of the new decade due to a significant increase in public spending and a decrease in tax revenues. The measures of the fiscal reform are centered both on spending and taxes, with some that are unexpected and others that are announced to be implemented next year. In addition to the measures reported, an increase in Social Security benefits was also introduced (IMF Staff Reports 1997, p. 22). However, since the aim of this measure is not clear and Devries et al. do not report it, we exclude the measure from our calculations. Data about components are taken from the IMF Staff Report 1997, p. 22.

Japan 2003

The consolidation is the first step of a fiscal consolidation program that aimed at reducing the size of government within 4-5 years. The adjustment is completely based on public investment cuts. Data about components are taken from the IMF Staff Report 2004, p. 30, 31, 32.

Notes:

- Notice that for all the cases of Cuts in Public Investments (for this year as well as for future years) we are computing the total amount of the measures using the projected GDP for the year we found on the Staff Report. In fact we believe it is the best way to evaluate the expected value of the measures. In any case, there are not significant differences when using the other values.

Japan 2004

The adjustment goes in the same direction of the previous consolidation. Unlike the 2003 reform, this episode is also based on tax hikes, mostly centered on personal taxes and distributed in two years (2004 and 2005). The government continues its plan of public investments reduction. Data about components are taken from the 2005 IMF Staff Report and from the OECD Economic Surveys 2005 (p. 83).

Notes:

- In 2004 the Japanese government also implemented a pension reform. However, as the 2004 IMF Staff Report argues, this reform was estimated to deliver savings only over the medium term.

Japan 2005

The fiscal adjustment aims at further reducing the budget deficit and containing spending growth. Data about fiscal components are taken from IMF Staff Report 2006 (pp. 35, 36).

Notes:

- While there was “*a sharp decline in government employment beginning in 2004*,” this was partly offset by an increase in public-sector wages in 2005. We do not include this change since the net is zero and the two measures will fall both in category “salaries”.

Japan 2006

The adjustment is motivated by the extremely deteriorated conditions of Japan's fiscal stance. Indeed, Japan had the worst deficit-to-GDP ratio among developed countries and an extremely high public debt. The consolidation was centered both on tax hikes that fell mostly on personal taxes and spending cuts that further reduced the total amount of public investments. Some consolidation measures were implemented already in 2006, while others were to be implemented in 2007. Data about fiscal components are taken from the IMF Staff Report 2007 and the OECD Economic Surveys 2006, p. 83.

Final notes

- Notes on 1999-2002: Devries et al. state that fiscal consolidation was suspended in late 1998 and did not resume until 2003. As the FY 2004 Budget explains (“History of Japan’s Public Finance,” p. 1): “*in December 1998, Government decided to suspend the effect of the Fiscal Structural Reform Act, in the light of doing its best to recover from the weak economy.*”
- Note on 2008-09: “Following the onset of the global financial crisis, measures of the medium-term strategy were not fully implemented” (Devries et al., 2011).

PORTUGAL

Important remarks:

- Some measures were recorded in the documents as percentages of GDP. In order to be consistent, in our excel file we translated these measures in billions (PTE or € depending on the year) by multiplying the percentages by GDP itself.
- The sources consulted for Portugal are: various issues of the Banco de Portugal Annual Report, IMF Recent Economic Development, IMF Staff Report, OECD Economic Surveys, Portugal Stability Program Update, Portuguese Republic Stability and Growth Programme, and Update of the Convergence Programme of Portugal.

Portugal 1983

Behind this year fiscal consolidation there was the need to reduce the deficit, as explained by the 1983 IMF Staff Report (p. 5): “*The 1983 budget was shaped by the objective of achieving a substantial reduction in the deficit of the General Government in relation to GDP.*” The 1985/1986 OECD Economic Surveys reports that the policy easing following the 1979 oil shock “*made it necessary in 1983 to revert to a more restrictive stance, in the context of an economic program again drawn up with IMF support*” (p. 19). The (unexpected) fiscal measures implemented in 1983 entailed both spending cuts (PTE 17.7 bn) and tax hikes (PTE 25 bn). The data used for classification comes from the 1983/1984 OECD Economic Surveys.

Notes:

- Devries et al. (2011) do not mention that the above measures were implemented only in the second half of the year and that there was a first-round budget already implemented for 1983. Indeed, according to IMF Recent Economic Developments 1984, p.25: “*even before embarking on the stabilization program in the second half of the year, the Government had formulated the 1983 budget in the light of growing recognition that the financial policies of the past had contributed to the continuation of high domestic inflation rates and to the widening of the balance of payments deficit*”. This budget planned some surcharges on the transfer, estate and gift, and capital taxes, which were expected to yield Esc. 12.5 billion in additional revenues. Moreover, other indirect taxes were supposed to be implemented (IMF 1984, p.25). However, Devries et al. might have decided not to include this first-round budget because its objective was to set as a target deficit the same nominal amount as in the 1982 budget... “*Despite such measures, the delayed implementation of the budget, which came into effect only in April, coupled with substantial slippages in expenditure control during the first half of the year coinciding with the tenure of a caretaker government, pointed to a substantial overshoot of the initial budget target, possibly reaching 11 percent of GDP in the absence of remedial measures*” IMF 1984, p.25. Thus, “*some economy measures were taken in the interim budget. The figure for current spending for a number of items was cut by about 4 per cent, or 11.7 billion escudos. In addition, expenditure on goods and services was cut by 15 per cent or about 6 billion escudos*” (OECD 1984 p.42). And then, “*Beginning in June 1983 the new government took a series of fiscal measures designed both to slow the growth of the budget deficit in the short term and to curb domestic demand.*”
- Looking at the reports of Banco du Portugal 1983 and 1984, there is a very useful disentanglement of the discretionary components of the 1983 budget but the figures do not correspond to the ones of Devries et al. (2011) and hence of the OECD, probably because they take into account all of the policies implemented in 1983 and not the fiscal adjustments implemented after the second half of the year.
- In 1983, Portugal experiences a PTE 25 bn tax hike, in terms of both direct and indirect taxes. However, the fact that the fiscal consolidation was an adjustment basically made at the end of the year makes it particularly difficult to disentangle its components. Indeed, no info is given in the IMF Recent Economic Developments report or in the OECD Surveys. Since in our sample Portugal usually relies more on direct taxes (as opposed to indirect taxes) when implementing fiscal consolidation policies, we decided to attribute 2/3 of the above mentioned tax hike to direct taxes, and the rest to indirect taxes.

Portugal 2000

As stated by Devries et al., “*Fiscal consolidation was motivated by meeting the government’s budget deficit target and was based on an intra-year budget freeze (2001 OECD Economic Surveys, p. 45)*”. We categorized the fiscal measures according to the Stability and Growth Programme 2000-2004 p.15.

Notes:

- OECD 2001, p.50 and Stability and Growth Programme 2000-2004 mention restrictions on civil service recruitment as another measure introduced in the 2000 budget. New recruitments must be authorized by the Prime Minister and the Minister of Finance. With the ageing of the workforce, the number of civil servants retiring in Portugal is expected to increase significantly over the next few years. A substitution ratio of well below one will be a major factor in consolidating the budget in the medium term. However, the impact of this policy is not computed in the reports and not included by us since it probably has impact in the following years, at a rate that is unknown to us.

Portugal 2002

Fiscal consolidation in 2002, consisting in spending cuts and tax measures, was motivated by deficit reduction, as the 2002 IMF Staff Report explains (p. 14): “*the newly elected government implemented sizable measures aimed at reducing the fiscal deficit to 2.8 percent of GDP*”. Therefore, a rectifying budget was presented to parliament, which became law in June. It included consolidation measures totalling about 0.6% of GDP (Update of the Convergence Programme of Portugal (2003-2006): An Assessment). Moreover, one-off measures introduced in late 2002 had a budgetary impact of 1.50 percent of GDP (Banco de Portugal Annual Report 2002, p. 97). Of these, only 0.9 percent of GDP is taken into consideration because the rest consisted in privatizations. The decomposition of these measures was performed according to the Banco de Portugal 2002 Annual report and Update of the Convergence Programme of Portugal (2003-2006): An Assessment.

Notes:

- GDP2001=122.978 billion € Source: OECD Economic Surveys 2003.
- Notice that Devries et al. (2011) computed the spending cuts to be equal to 0.4 percent of GDP. But this is because it computed the total amount of the shock to be (0.6+1.5-0.5), with -0.5 being the result of asset sales. However, according to Banco de Portugal 2002 Annual report (p.97), the total amount of asset sales was equal to 0.6 % of GDP, changing the residual for spending from 0.4 to 0.3.
- The rectifying budget included other measures, notably the freezing of hiring by the government, the closure and merger of public institutes, and the end of new interest rate subsidies to mortgage loans. The rectifying budget also provided for the sale of government property. However, the impact of these measures is not taken into account in the reports that we use, hence we cannot include them in the analysis.
- The €1.1 bn (0.9 per cent of GDP) fiscal correction implemented in late 2002 concerned the Decree-Law No. 248-A/2002 (14th November) establishing that tax arrears, which should be legally collected by 31 December 2002, could be settled without paying interest and fines.
- According to the Update of the Convergence Programme of Portugal (2003-2006): An Assessment, “*the July budget included consolidation measures totalling about 0.6% of GDP, notably a rise in the normal VAT rate from 17% to 19%, and a reduction in investment expenditure*”. Since in the Banco de Portugal 2002 Annual report, it is computed that the rise in VAT had an impact of 0.3% of GDP (i.e. approximately 0.37 bn), we allocate the residual of 0.3% to the investment expenditures.

Portugal 2003

The end of the one-off tax amnesty introduced in 2002 (the PTE 1.1 bn entry) had a budgetary impact of -0.75 percent of GDP (€-0.9 bn) in 2003. The one-time tax amnesty yielded in 2003 tax revenues lower to the ones collected in 2002 (0.15 percent of GDP in 2003 as opposed to the 0.90 percent of GDP in 2002 – see footnote in previous year), as explained in the Banco de Portugal Annual Report 2004 (p. 102). The change in savings due to the 2002 tax measure in 2003 was thus -0.75 percent of GDP (0.15-0.90). According to our time framework the whole -0.75 is classified as unexpected in 2003, since the measure was announced only in November 2002. Hence we cannot consider this year as a year of fiscal consolidation, nor as part of a fiscal consolidation plan.

Portugal 2005

The motivation behind the 2005 fiscal consolidation was deficit reduction, as explained by the 2005 IMF Staff Report (p. 13): “*the authorities had announced a series of measures, mostly on the revenue side, that are intended to reduce the deficit to 6.0 percent of GDP this year.*”

The 2005 corrections are part of a structural plan begun in 2005/06. The expenditure measures expected to have an impact on the budget in the Stability and Growth Program 2005-2009 regarded two main areas: Restructuring of Public administration, Human Resources and public services and the curbing of Social Security and Health co-payment expenditure. Within the first area of expenditure reforms, several measures were implemented in order to modernize the public services. Some of the measures announced in 2005 were:

- PRACE (Restructuring Programme for the State’s Central Administration) aimed at decentralize duties to local authorities, reduction of administrative structures, simplification, streamlining and re-engineering of administrative procedures.
- Reorganization of Education, Healthcare, Justice and Local Government Network. Some of the measures were: hospitals of the National Health Services shall adopt the corporate public entity model and implement other organizational changes, primary schools (1st cycle) with less than 10 pupils should close down and alike.
- The government has committed itself to a comprehensive reform of a too complex and rigid civil service careers.
- Freezing of automatic progression mechanisms until the legislation regarding the reform careers is being drafted.
- Recruitment rules are changed and only one new recruit is hired for every two civil servant leaving
- Increasing in the effectiveness of the management and mobility of civil servants.

Overall these measures produced an expected impact which is outlined in Table 2.4.1 of the Stability and Growth Programme (2005-2009, December update). However, we consider that the impact only estimated the new recruitment rules for civil servants. This assumption is made given the fact that Table 7 of the stability and growth program 2007-2011 represents the impact of the same group of reforms, and the component representing the ‘control of admission and recruitment’ exactly corresponds to the estimates presented in table 2.4.1 of the Stability and Growth Programme (2005-2009, December update).

The measures affecting Social Security and Health co-payment expenditure included instead reforms on the pension system like the establishment of ceiling to pensions and new formulae to compute contributions, the civil servants forced registration to the general Social Security scheme, plus their retirement age gradually rose from 60 to 65 and other measures involving transfers for health services. However, these policies had impact only in 2006.

Notes:

- The €0.1 bn restructuring of Public Administration, Human Resources and Public Services performed in 2005 included the devolution of duties to local and regional levels, reduction of administrative structures, the simplification, streamline and re-engineering of administrative procedures. Moreover, many reforms in the management of human resources were applied such as altering of the status of trainee teachers, teaching duties in retirement, freezing of automatic progression, change in recruitment rules and many others.
- For the measures anticipated in 2005 but implemented in the next years, we used GDP₂₀₀₄=142.843 billion euros. Source: OECD Economic Surveys 2006

Portugal 2006

Fiscal consolidation in 2006 was motivated by a multi-year deficit reduction strategy (which also involved the 2007 measures), as the Portuguese Republic Stability and Growth Program 2005-2009 explains (p. 1): *“The Government views the sustainability of public finances as a prerequisite for sustained economic growth, which, in turn, is an essential factor in the pursuit of economic development and social cohesion policies. In this vein, budgetary consolidation is, in a particularly focused manner in 2006, at the centre of the immediate objectives of budgetary policy.”* There are some discrepancies between the measures retrieved by Devries et al. and what we believe should be taken into account. The measures recorded here come from Table 2.4.1 of the Stability and Growth Programme 2005-2009. Unless otherwise stated, in annex 2.A1 of OECD 2008 we verified that all the measures with impact in 2006 (both the ones previously announced and the unexpected ones) were contained in the budget law 2006, promulgated in November 2005.

Notes:

- For the unexpected 2006 measures as well as the measures anticipated in 2006 but implemented in 2007, we used GDP= 155.833 billion euros from Table 2.4.1, p. 30, Stability and Growth Programme 2005 2009, December Update.

Portugal 2007

In order to disentangle our estimates we looked at Figure 2.4 of OECD Economic Surveys 2008/9 p.46 because it is exactly the same source that Devries et al. (2011) took as a reference. Most of the measures were apparently been decided already in 2006 (and hence recorded in that year as announced corrections). Again, our classification differs from the one of Devries et al. in certain respects. In particular, we distinguished clearly between unexpected and announced measures.

Notes:

- For unexpected measures implemented in 2007, we used GDP₂₀₀₇= 162.919 billion €. Source: OECD Economic Surveys 2008.

Portugal 2010

The fiscal consolidation process began in 2010, despite the need to continue anti-cyclical policies: *“[the 2010 Stability and Growth Programme] determinedly defines a clear and serious budgetary consolidation strategy, with the goal of reducing the General Government deficit to 2.8% of GDP by 2013 and controlling the growth of General Government debt [...]. The Portuguese Government makes this commitment aware that a serious and consistent fiscal consolidation process, aimed at achieving the sustainability of public accounts, is a necessary condition for the strengthening of confidence and sustained economic growth, contributing to the correction of external macroeconomic imbalances and promoting the competitiveness of the Portuguese economy”* (Stability and Growth Programme 2010, p. I).

The initial focus of the plan was mainly on expenditure cuts, with strong restraint in wage and non-wage public consumption, social transfers and public investment. However, the contribution from the revenue side, initially modest, was significantly scaled up by additional measures announced in May 2010 (ANNEX 1.A2 in OECD Economic Survey 2010 p. 54). The Stability Program also announced measures to have an impact in 2011.

Notice that even though the Stability Program planned to reduce the deficit from 9.3% of GDP in 2009 to 3.0% in 2012 and 2.0% in 2013, we do not introduce in our records any announced fiscal consolidations for the years 2012 and 2013. This is because no detailed plan was given on how to reach these targets and Portugal was not (yet) working under a binding fiscal plan.

Portugal 2011

“2011 was marked by the request for economic and financial assistance. In that context, a comprehensive adjustment programme was designed to correct the structural imbalances of the Portuguese economy, including a public finances consolidation plan intended to ensure a sustainable evolution path” (Annual Report of Banco de Portugal 2011, p.93). Given the imposition of strong fiscal consolidation by international institutions, needed to qualify for the bailout necessary to recapitalize the banking sector, we consider the fiscal consolidation plan started in 2011 to be exogenous to current or perspective state of the economy.

As part of the deal, the country agreed, in the Memorandum of Understanding, to cut its budget deficit from 9.8 percent of GDP in 2010 to 5.9 percent in 2011, 4.5 percent in 2012 and 3 percent in 2013. The three-year programme was backed by substantial international financing (€78 billion). The three main goals of the programme were: i) implementing a credible fiscal consolidation supported by structural fiscal measures and better fiscal control over public-private partnerships and state-owned enterprises; ii) safeguarding the financial sector; iii) implementing deep structural reforms (OECD Economic Survey 2010, p. 11).

According to the Bank of Portugal Annual Report 2011 at p. 95, the 2011 fiscal consolidation derived from a decrease in primary structural expenditure and, to a lesser extent, from an increase in structural revenue. This development is essentially explained by the strong reduction of compensation of employees and the contraction of public investment.

Notes:

- We use the Bank of Portugal report to compute the fiscal shock in 2011, and not the Budget Law or the Stability Programme or the Economic Adjustment Reports, because 2011 was a year in which several different fiscal plans (and even two governments) overlapped. For instance: “Already in August, deviations from the Programme plans had been found due to expenditure overruns and non-tax revenue underperformance. Furthermore, non-recurrent deficit increasing factors were identified, namely the recording of the debts of a financially-troubled SOE and of a failed PPP agreement both in the remit of the Madeira regional government. Additional and previously non-accounted costs related to the planned sale of troubled bank BPN increased the budgetary shortfall further” (The Economic Adjustment Program for Portugal, Second Review, p.18). As a consequence it is not easy to find a document summarizing and computing the total amount of measures in place during this year, except the Bank of Portugal Annual Report for 2011. Although this report is written ex-post, it provides computation of the impact of structural measures implemented in that year, excluding cycle-related and temporary effects, which is exactly what we need. Ideally, our measures always represent the ex-ante estimated impact of new fiscal measures as reported in the Stability and Growth Programmes or the Economic Adjustment Reports in the case of Portugal.
- In order to compute the cyclically-adjusted structural impact of revenues, the Bank of Portugal included revenue from taxes on income and wealth, taxes on production and imports, capital taxes and social contributions, cyclically adjusted and excluding the impact of temporary measures. However, although we are not interested in the temporary revenue effect of privatizations, concessions and pension funds' transfers, we do want to take into account the impact of a one-off personal income tax surcharge implemented during mid-2011 of an amount of 0.5 percent of GDP (see Bank of Portugal, Table 3.1.2 p.94 and Budget Strategy Document p.35).

Part of the measures implemented in 2011 were announced already in 2010 (see Annex 1.A2 in OECD Economic Survey 2011 p.54) and hence recorded in 2010, while some others were promulgated after the realization that additional measures were necessary in order to achieve the deficit target (unexpected 2011 measures).

Notes:

- In order to disentangle the magnitude of the unexpected and the anticipated effects (anticipated in 2010 for 2011) we take into account the OECD estimates for 2011 computed in Annex 1.A2 of the OECD Economic Survey 2010 (p. 54). As a consequence we compute the anticipated expenditure effect to be equal to 1.41 (computed as the difference between the impact that the measures announced in 2010 have in 2011 and their impact in 2010, always according to the Annex of the OECD Economic Survey 2010 but excluding reduction of transfers to state-owned enterprises

and reduction of interest payments) and anticipated revenue changes to be equal to 1.43. The unexpected component of expenditure – so-called “Residual expenditure” – is then 0.6 percent for expenditure (2-1.41, where 2 denotes the total decrease in expenditure written above) and 0.5 percent of GDP for revenues due to the temporary wealth income tax in expiration during 2012.

Portugal 2012

The Economic Adjustment Program (Fifth Review) estimated the total consolidation measures implemented in 2012 to be 5.7 percent of GDP, composed by two third of expenditure measures. However, the total new consolidation effort was higher than foreseen at the outset of the Programme (in 2011), due to the need to compensate the worse underlying fiscal position in 2011 and the projected sharper contraction of economic activity (as stated in the Economic Adjustment Report, Fourth Review).

Notes:

- In the Council Recommendation on Portugal’s 2012 national reform programme and delivering a Council opinion on Portugal’s stability programme for 2012-2016 (§ 13): *“The 2012 budget includes consolidation measures amounting to more than 5% of GDP, which are made up of permanent structural measures. Two thirds of the measures are on the expenditure side and include a significant cut of public sector wages and pensions, a reduction in the number of government employees by 2% (full-time equivalent) and a rationalization of state-owned enterprises. On the revenue side, the budget envisages a reduction in tax exemptions, an increase in the number of goods and services taxed at the standard VAT rate, higher personal income and corporate taxes, an increase in excise taxes and enhanced efforts to fight tax evasion and fraud”*.
- We consider 4.5 percent of GDP contraction to be anticipated (given the Budget Strategy Document 2011-2015), and 1.2 percent (5.7-4.5) to be unexpected and introduced in the 2012 Budget Law, together with further mid-year Budget corrections. Although we did not find details about all the unexpected measures that were added up in 2012, we do know that two thirds of them were composed by expenditure cuts (as stated in several Stability programmes, Council recommendations and Troika reviews). As a consequence, the expenditure cuts were computed as 3.7 percent of GDP (of which 2.9 were anticipated from 2011 in the Budget Strategy Document 2011-2015) and revenue increases are estimated to be 2 percent of GDP (of which 1.6 were announced from 2011 in the Budget Strategy Document 2011-2015 and -0.5 came from the expiration of previous one-off measures).

Portugal 2013

In 2013, the fiscal plan changed its expenditure-based nature to become predominantly revenue-based. This happened because of further unexpected measures arisen in mid-2012 causing the renegotiation of deficit targets and the need to compensate the annulment by the Constitutional Court of some expenditure cuts decided in previous years. The 2013 Budget Law implemented a consolidation composed for 80 percent by tax increases and the remaining part by expenditure reductions (6th Review, Dec 2012).

Notes:

- In spite of tight spending controls and favourable one-off factors, the deficit targets of 4.5% of GDP in 2012 and 3 percent of GDP in 2013 were not considered achievable anymore in the Economic Adjustment Program, 5th Review (p.17). As a consequence, International institutions *“proposed to revise the fiscal targets with a view to accommodating the negative windfall from the deterioration in the macroeconomic environment”*. The new targets, eased the requirement in 2012 but required further and significant consolidation efforts in 2013 and 2014 of 3 percent and 1 3/4 percent of GDP respectively.
- On June 2012 the Constitutional Court ruled that the suspension of holiday and Christmas bonuses (13th and 14th monthly salary) for public sector workers and pensioners, a measure that was adopted with the Budget Law 2012, was unconstitutional. *“In response to this judgment the government plans to reinstate one extra payment in 2013. The additional expenditure of an estimated 3/4 percent of GDP will be financed by a revision of the personal income tax structure resulting in a reduction of the number of brackets combined with a general surcharge of 4 percent of taxable income and a 2.5 percent solidarity tax the highest tax bracket.”* Economic Adjustment Program 5th Review (Oct. 2012).

On April 5 2013, the Constitutional Court ruled (again) against some expenditure cuts decided in the 2013 Budget Law but these were compensated promptly by the frontloading of part of a Spending Review Plan supposed to be implemented in 2014.

Notes:

- On April 5 2013, the Constitutional Court ruled against “*some of the 2013 budget provisions, including the remaining cut of one of the two bonus payments for public workers and 0.9 times of the two bonus payments for pensioners and the introduction of social security contributions on unemployment and sick leave benefits, thereby creating a budgetary gap of 0.8 percent of GDP. To close this gap and to underpin the required fiscal adjustment in the years ahead, the government adopted in the course of April and May a package of permanent expenditure-reducing measures with a cumulative yield of EUR 4.7 billion (2.8 percent of GDP) over 2013-2014, of which measures worth 0.8 percent of GDP are frontloaded into 2013. In addition, given the need for a rapid reaction to the Constitutional Court ruling, some of the measures in 2013 are of temporary nature and will be compensated for by permanent measures in 2014. On the whole, revenue increases will bear the brunt of the adjustment in 2013 but the balance between revenue and expenditure-based consolidation will be re-established in 2014*” Economic Adjustment Program, 7th Review.

Finally, at the end of 2013, “*corrective measures amounting 0.5 percent of GDP [were added to previous measures]. These included, notably, the reduction of available funds for investment and tighter control on intermediate consumption of line ministries amounting to an overall 0.1 percent of GDP. In addition, the government has announced a debt recovery scheme for taxes and social security contributions to be implemented before year end and expected to yield about 0.4 percent of GDP in 2013*” (Economic Adjustment Program, 8th and 9th review, § 24).

Notes:

- The rest of the expenditure plan was supposed to proceed with permanent expenditure-reducing measures of 2 percent of GDP in 2014. However, the consultation and approval process was stopped by the Constitutional Court four times after the submission of the law to the Parliament by mid-July 2013 (Article of Wall Street Journal: “Portuguese High Court Rules Cuts in Public Pensions Illegal” of Dec. 19, 2013). As a consequence we do not consider these expenditure cuts to be anticipated. To confirm the uncertainty involving the process of approval of this package we report the comments in the June 2013 Review of Economic Adjustment of Portugal: “*the package faces risks of a political and legal nature, such as the consistency of the measures with the Portuguese Constitution. As to the latter, it will be important to limit these risks by submitting reform proposals that appear contestable from a constitutional point of view to a prior legal review. In view of the political and legal risks surrounding the implementation process, some of the measures may be partly or fully replaced by others of similar volume and quality*”.

Portugal 2014

In 2014, further corrections were implemented, mainly on the spending side. Portugal aimed at reducing the deficit to 2.5% of GDP by 2015, achieving the medium-term objective of a structural deficit of 0.5% of GDP by 2017 and bringing down the level of public debt as a percentage of GDP to the 60% threshold (The Economic Adjustment Programme for Portugal 2011-2014, pg. 28). From a total fiscal consolidation of approximately €3.5 bn, €0.92 bn came from tax increases while €2.58 bn came from spending cuts. Minor adjustments were announced for the next year as well.

Final notes:

- 2008 and 2009 are considered as years of fiscal stimulus and are not included in the simulation: “*After the period of budgetary consolidation and key structural reforms pursued in 2005-2008, the economic policy of the Portuguese Government is now focused on a significant anti-cyclical budgetary effort to support investment and employment, support the most vulnerable households and strengthen financial stability*” (Stability and Growth Programme 2008 – 2011 January 2009 Update, p. I). The Portuguese government chose to conduct budgetary expansion far exceeding the average value agreed by the European Union and measures with very high reversal costs were adopted (Stability and Growth Programme 2010, p.31).

SPAIN

Important remarks:

- Some of the fiscal corrections we found were reported as percentages of GDP. However, in order to list in the excel file all the measures in a consistent manner, we decided to turn them into monetary terms (i.e. in terms of billion Ptas). To do so, we have multiplied the figures in percentage of GDP by GDP itself.
- The sources consulted for Spain are: various issues of the IMF Recent Economic Development, IMF Staff Report, OECD Economic Surveys, Medidas Gasto and governmental documents (Budgets and Stability Programmes).

Spain 1983

The fiscal adjustment announced and implemented in 1983 is based on tax hikes and motivated by the necessity to reduce the budget deficit. Data are taken from the 1984, IMF Recent Economic Developments.

Notes:

- GDP1982= 19911. Source: OECD Economic Survey 1984

Spain 1984

The motivation behind the 1984 fiscal consolidation was deficit reduction, as explained by the 1985 IMF Recent Economic Developments (p. 37): *“One of the central aims of the Spanish economic policy for 1984 was to continue the process of fiscal adjustment initiated in 1983 and to achieve a considerable contraction in the overall deficit and in the financing needs of the General Government.”* The (unexpected) fiscal consolidation of 1984 was based both on spending cuts and corrections on the tax side. Data are taken from the 1984, IMF Recent Economic Developments.

Spain 1989

The adjustments occurred in 1989 started a consolidation process that lasted two years and was motivated by reducing the deficit before 1992. After 1992 a new series of fiscal adjustments started to achieve the criteria imposed by the Maastricht criteria. The measures of the adjustment in 1989 were approved in two different stages. First, the 1989 Budget prescribed an increase in the tax levy induced by both direct and indirect taxes. A second part of measures was announced in May, and motivated by the acceleration in the rate of inflation, which according to our procedure must be classified as exogenous. Some of the measures included in the second package expired in 1990 with a negative impact on budget deficit. Data on fiscal components are taken from IMF, Recent Economic Developments 1989 (p.27-28).

Notes:

- GDP 1989 =48077 billion. Source: Devries et al.
- On the spending side, we decided to exclude the postponement of payments of overdue financial obligations that was worth Ptas 75 billion, since it seems to be an “under the line” measure. As a consequence, we move away from Devries et al. (2011) also in year 1990 where they include a negative shock of Ptas -75 billion.

Spain 1991

The Personal Income Tax Reform approved in 1991 announced a decrease in the personal income tax for the following year. According to the OECD Economic Surveys 1991/1992 (pg. 38), this reform

“aimed at alleviating the tax burden and stimulating long-term savings by reducing taxes on capital gains and on popular saving plans”.

Notes:

- Personal income tax rates were lowered considerably, by about 3 percentage points on average including a fall in the top marginal tax rate from 56 per cent to 53 per cent.
- Notice that the mid-1991 reform is not part of the traditional legislative process and therefore is not considered part of the 1992 Budget.

Spain 1992

The adjustment measures implemented in 1992 are characterized by three different rounds of announcements. The first one is the 1992 Budget that introduced indirect and social security taxes that were completely offset by the decrease of the personal income tax announced in 1991. The second round is put in place in April, right after the Convergence Programme was presented. The government made substantial changes in the unemployment coverage regulations and prescribed cuts in government transfers. Finally, despite these measures, the deficit was still above the target and thus forced the government to implement further measures in July, which included personal and indirect taxes and additional cuts in government transfers.

Together with corrections implemented in 1992, in this year there are also announcements of fiscal consolidation measures to be implemented in 1993 (period t+1). Data about components are taken from OECD Economic Surveys 1992-1993 (Table 11, p. 43).

Notes:

- GDP1991= 54791 billion. Source OECD Economic Surveys 1993.
- For a detailed description of the three rounds of announcement and their motivation see OECD Economic Surveys 1992-1993.

Spain 1993

The government confirms its commitment to pursue budget consolidation to achieve the Maastricht criteria. The unexpected fiscal adjustment measures occurred in 1993 come from the 1993 Budget (note that also the measures introduced in 1992 are implemented in 1993, but with no apparent changes. Hence, according to our identification scheme they are recorded in 1992). Data about fiscal components are taken from OECD Economic Surveys 1992-1993 (Table 11, p. 43).

Notes:

- GDP1992=58852 billion. Source: OECD Economic Surveys 1994.

Spain 1994

The adjustment was motivated by the need to attain the Maastricht criteria. It was only based on spending cuts that concerned government consumption and public investments. In particular, the latter knew a significant cut. Data are taken from the 1996, IMF Recent Economic Developments.

Notes:

- GDP1994=64669 billion. Source: OECD Economic Surveys 1996. This is the same GDP reported by 1996, IMF Recent Economic Developments where we retrieved details about the consolidation measures.

Spain 1995

The consolidation is based on the Convergence Plan introduced the previous year and is exclusively based on spending cuts. Data about spending components are taken from the OECD Economic Survey 1995-1996, p. 139.

Spain 1996

The adjustment was motivated by the reduction of budget deficit needed to achieve the criteria imposed by the Maastricht Treaty. Data about components are taken from the OECD Economic Surveys, 1997/1998.

Notes:

- GDP1996=73661. Source: OECD Economic Surveys 1998, which is the document where we retrieved details about the measures of fiscal consolidation.

Spain 1997

This adjustment is the final step to meet the Maastricht criteria and is characterized by unexpected measures on both fiscal leverages. Data on fiscal components are taken from the IMF, Recent Economic Developments 1997.

Notes:

- GDP1996=73661. Source OECD Economic Surveys 1998.

Spain 2009

In 2009, the unique measure linked to deficit reduction was an increase in excise taxes for a total of 0.3% GDP. The measure was implemented in July 2009, although sometimes official documents report it in 2010. Also, together with the other fiscal consolidation measures announced in 2010, it helped the government in its goal to restore public finances. We refer the reader to the Stability Programme Update 2009-2013, Table 4.2 pag. 24 (February 2010).

Notes:

- Most of the measures in 2009 were excluded since, as stated in the Stability Programme Update Spain 2008-2011 (January 2009, p. 8), due to economic circumstance, the general economic policy objective in 2009 was to “mitigate the effects of the crisis and stimulate the economy, particularly through fiscal policy, while preserving the sustainability of public finances and improving their quality”. The approved budget package included temporary and permanent measures increasing fiscal stimulus to approximately 25.7 billion euro, i.e. 2.3% of GDP (p. 9).

Spain 2010

“In any event, the challenge facing the Spanish economy lies in implementing an ambitious exit strategy from the crisis, which includes two main lines of action [strengthening of the financial system and structural reforms] in addition to budgetary consolidation. [...] The government's fiscal exit strategy combines firm curtailment of expenditure with a moderate increase in revenues” (Stability Programme Update Spain 2009-2013, February 2010, p. 3).

The Spanish Government's budgetary consolidation strategy is defined in two instruments: firstly, the Central Government Budget for 2010, approved in December 2009; secondly, the initiatives approved by the Cabinet on 29 January 2010, including two plans (Immediate Action Plan 2010 and Austerity Plan 2011-2013), and two Framework Agreements on the Sustainability of Public Finances with the Autonomous Communities and the Local Governments. Additionally, the Sustainable Economy draft Bill included a number of fiscal measures with a budgetary impact (p. 23). More details follow below:

- Central Government Budget for 2010 (Presupuestos Generales del Estado para 2010): this document contained measures both on the revenue and on the expenditure side. Together with expenditure cuts, increases in spending were implemented for a new Central Government Fund for Jobs and Local Sustainability, which is not taken into account for the purposes of the study since it seems to be an endogenous stimulus.
- Immediate Action Plan 2010 (Plan de Acción Inmediata 2010): it entailed additional spending cuts.
- Austerity Plan 2011-2013 and Framework Agreements (Plan de Austeridad 2011-2013 and Propuesta de un acuerdo marco para las Comunidades Autónomas y Corporaciones Locales.): for the outer years, “*the main proposals included in this package intend to (i) practically freeze the public sector hiring process and sharply contain wage increases, (ii) reduce permanently intermediate consumption, transfers and other expenses, (iii) decrease gross fixed capital formation, (iv) cut subsidies*”. The Austerity Plan 2011-2013 and the Framework Agreements still needed to be approved and specified in greater detail during the coming year (2011) (Macro Fiscal Assessment, European Commission Directorate General Economic and Financial Affairs, March 2010, p. 6).
- Sustainable Economy draft Bill (Anteproyecto de Ley de Economía Sostenible): the Sustainable Economy Law was approved later in March 2011.

Additionally, in May 2010, the Royal Decree-Law 8/2010 was passed, which included a series of extraordinary measures to cut public spending, in this (2010) and in the next (2011) year (Stability Programme Spain 2011-2014, April 2011, p. 16).

Notes:

- The Immediate Action Plan (2010) implied a reduction in the allocation to the Contingency Fund and a drop in public sector hiring in 2010 to 10% of the replacement rate and a halt in the recruitment of new temporary personnel. In addition, spending allocations to real investments, capital and current transfers and operating expenses were also frozen (Spain: Macro Fiscal Assessment, European Commission Directorate General Economic and Financial Affairs, March 2010, p.16).
- The Royal Decree-Law 8/2010 is passed so as to further reduce deficit targets established into the Stability Programme for 2010 and the subsequent years.

Spain 2011

“*The budget for 2011 maintains the line of fiscal consolidation that began with the budget for 2010 and is consistent with the various measures taken during the past year*” (Stability Programme Spain 2011-2014, April 2011, p. 17). “*The 2011-2014 path of fiscal consolidation contained in this Stability Programme has a key policy anchor in the Expenditure Review Plan 2011- 2013, approved by the Council of Ministers on May 20th, 2010*” (p. 21). The consolidation is composed by the effects of the Expenditure Review Plan 2011-2013 and the result of a commitment by the Autonomous Communities and Local Government that was worth €1.2 billion (0.11% of GDP) in 2011 (Stability Programme Spain 2011-2014, April 2011, p. 21). The Expenditure Review Plan was announced in May 20th 2010 and composed by measures concerning i) public administration employees, ii) intermediate consumption and social transfers, iii) social benefits, iv) subsidies and v) investments (p. 23-24).

Spain 2012

“*Since 2009 Spain has been in the framework of the Excessive Deficit Procedure [...] Moreover, the deviation in budgetary targets in which Public Administrations incurred in 2011, led to additional financing needs of 2.5 p.p. of GDP, which is higher than quoted in the Stability Programme for 2011-*

2014. It requires an additional adjustment in 2012 and 2013, which will accentuate the contractive orientation of fiscal policy at a moment when the Spanish economy already shows a clearly negative cyclical gap” (Stability Programme Update Kingdom of Spain 2012-2015, April 2012, p. 18). This passage, coming from official documents, explains the decision by the Spanish government to implement substantial unexpected measures in 2012, paired with announcements of future fiscal consolidation corrections in the next years.

“The Government has designed an austere budget for 2012, adequate to the Spanish public finances situation, and rigorous, as it is based on a realistic macroeconomic scenario. The target of this budget is to reduce deficit from 8.5% in 2011 to 5.3% in 2012, starting the consolidation path that will allow achieving the 3% of GDP deficit goal in 2013” (p. 30).

Spain 2013

“The State Budget for 2013 is part of the 2013-2014 Budget Plan approved by the Government and submitted to the European Commission on August 3, 2012. The Budget Plan 2013-2014 sets out the broad outline of government fiscal policy aimed at fulfilling the budgetary consolidation path approved by the ECOFIN Council on July 10, 2012, in which, given the complex economic environment and a high budget deficit in 2011, Spain was granted an additional year, until 2014, to bring the deficit below 3%, also modifying the deficit targets of the intervening years. This concession did not mean a relaxation at all, but on the contrary a tightening of fiscal consolidation efforts, as reflected in the evolution of the structural deficit estimated for the projection period.” (Actualización Del Programa De Estabilidad Reino De España 2013-2016, p. 24).

The unexpected measures in 2013 entailed an increase in spending of about €3.5 bn paired with a noteworthy €21.6 bn tax hike. Further fiscal measures were announced in 2013, to be implemented in 2014 and 2015.

Spain 2014

As in previous years, fiscal consolidation continued in order to reduce the public deficit and bring down the debt to a sustainable level. As stated in the Stability Programme Update 2014-2017 (pg. 7), *“For the purpose of further balancing the fiscal effort necessary to achieve the medium-term deficit target, the deficit goal is reduced in 2014 down to 5.5% of GDP, compared to the 5.8% required. The conservative nature of the economic forecasts and the firm commitment of the Government to allocate the effects of the stronger growth to deficit reduction, make compliance feasible. The targets of 4.2% and 2.8% of GDP are maintained for 2015 and 2016. [...] At the same time, progresses in deficit moderation will allow to slow the growth of public debt and reverse the trend as of 2016, having peaked in 2015.”*

Final notes:

- As stated in Devries et al. (2011), the Maastricht deficit criteria were achieved in 1997 and Spain became a founding member of the euro. In 1998, the budgetary deficit declined primarily due to favourable output growth, as the 1998 IMF Staff Report explains: “in designing the 1998 budget—which targeted a deficit of 2.4 percent of GDP—the authorities had sought to reconcile two main considerations: to meet the medium-term objectives of their convergence program, thereby demonstrating the sustainability of the progress achieved so far, and to satisfy some of the demands for higher social spending that had been postponed. The reconciliation between these objectives had been made possible by favourable cyclical conditions. Indeed, cyclical developments were expected to account for the full improvement of the budgetary position in 1998, which had allowed spending on education, health, and active labour market policies to rise.”

SWEDEN

Important remarks:

- The sources consulted for Sweden are: various issues of The Swedish Budget, IMF Recent Economic Developments and OECD Economic Surveys.

Sweden 1984

The consolidation is motivated by the will to reduce the budget deficit. The measures are mainly centred on transfer cuts. In particular, interest subsidies are limited for 1 and 2-family houses, retroactively abolished for home owners, food subsidies were abolished for several kinds of meat and the freezing of the nominal level of development aid. We changed the aggregate from the ones presented by Devries (2011) since there is a mistake in the way they have been reported. Indeed, Devries (2011) reports SKr 18.8 billion of tax hikes, while the real increase reported in The Swedish Economy Autumn 1984, p. 180 reports SKr 1.8 billion.

Notes:

- We computed the SKr 4.95 bn of “Interest subsidies cuts and freezing of development aid” as a residual subtracting the total of food subsidies cuts from the total amount of spending cuts reported in the Budget.
- Regarding the Not Yet Classified (NYC) Tax increase of SKr 1.8 bn, we cannot distinguish among direct and indirect taxes.

Sweden 1993

The consolidation is motivated by the necessity to reduce the large budget deficit that was rising international skepticism. The adjustment is based both on tax hikes and spending cuts that have effect also on calendar year 1994. Data about fiscal components are taken from the IMF Recent Economic Developments 1993, p.30, 31.

Sweden 1994

The consolidation is the first step of the multi-year deficit reduction plan that was designed in 1994 but with fiscal corrections announced also in the following years (1995-6). There were several rounds of reforms, with the main contributions to the plan being the November 1994, January 1995 and April 1995 proposals. All the fiscal measures announced in 1994 had an impact starting from 1995, though (no unexpected corrections in 1994). Moreover, there was a significant cut of EU contributions that was designed between autumn 1994 and April 1995. Data about fiscal components are taken from the OECD Economic Surveys 1995 (p. 31, 32) and OECD Economic Surveys 1997 (p. 58). We follow the methodology implemented by Devries et al. (2011) for the aggregate quantities. We exploit Table 12, Box 1, p. 32 (OECD Economic Surveys 1995) in order to decompose the aggregate values of revenues and spending. Moreover, we employ the data about the total deficit reduction experienced in the 4 years in order to allocate the total impact of each component along the years of the plan. We assume that the share of each component over the aggregate is constant overtime. This assumption does not drive our results in any way since we define the orientation of a fiscal plan by looking at the aggregate quantities over time. Notice that there are two waves of reforms presented in the sources whose detailed data are not available. We therefore include them in our residual category for revenues and spending.

Notes:

- For what concerns the measures introduced before 1995 (in 1994), we allocate them to spending and revenues using the same shares as the ones adopted by Devries et al. (2011) and reported in Table 12, Box1 (i.e. 60% spending, 40% revenues).

Sweden 1995

In 1995 further measures were announced as part of the multi-year deficit reduction plan begun in 1994.

Sweden 1996

In 1996 further measures were announced as part of the multi-year deficit reduction plan begun in 1994. Note that the 1996 reform is completely allocated to spending given the information we found in OECD Economic Surveys 1997, p. 208.

UNITED KINGDOM

Important remarks:

- Fiscal year runs from April 1 to March 31.
- The sources consulted for the United Kingdom are: various issues of the Budget, Autumn Statement, Budget Speech, Financial Statement and Budget Report (FSBR), IMF Recent Economic Development, IMF Staff Report, and OECD Economic Surveys.

United Kingdom 1979

According to Devries et al., “*Fiscal consolidation was motivated by the need to reduce the size of government and the budget deficit inherited by the administration that took office in May 1979 (June 1979 Budget Speech).*” In June 1979 the government announced a two-year program that involved both spending cuts and tax hikes, even if the net of tax measures is a tax reduction due to the decrease of the Personal Income Tax. Some measures were recorded as unexpected corrections in 1979, while others were announced measures to be implemented in 1980. For both years, data about fiscal components are from the IMF Staff Report 1979 (p. 9-10), but are integrated with data from the Financial Stability Budget Report 1979-1980 (Table 14 p. 26 and Table 16 p. 31).

Notes:

- The Petroleum Revenue Tax (PRT), levied in 1979 and amounting to £ 0.083 billion, is charged on "super-profits" arising from the exploitation of oil and gas in the UK and the UK's continental shelf.

United Kingdom 1981

Continuing on the plan outlined in the previous years, fiscal consolidation in 1981 was motivated by the need to reduce the budget deficit (March 1981 Budget Speech). The fiscal adjustment started in 1981 was a two-year plan based on both fiscal leverages, with measures distributed across the two years 1981 and 1982. Data about components are taken from the Financial Statement and Budget Report 1981.

Notes:

- Concerning the (unexpected) £ 0.9 bn direct taxes levied in 1981, the OECD Economic Survey 198, p.33 lists the following measures: -Excise duties were raised by twice as much as prices in order to compensate in part for incomplete adjustments in the past, -A special once-and-for-all 21 per cent tax on bank deposits, -The provision for

the indexation of personal income tax allowances and band rates was temporarily suspended, raising the fiscal burden on households, -Tax measures to help small business and, -A new stock relief scheme was introduced.

United Kingdom 1993

In 1993 and 1994 (fiscal years), there are three different waves of reform: the March 1993 Budget, the November 1993 Budget and finally some measures approved between the two. While the November 1993 Budget concerns the 1994 fiscal year (and hence will be discussed below), the March 1993 Budget announced fiscal measures to be implemented in the next two fiscal years. The motivation of this set of fiscal consolidation measures was clearly deficit reduction, as the 1994-95 Budget makes clear: *“The central purpose of this Budget is to put the public finances on to a sound basis, so that the economic recovery now under way can be sustained over the medium term. The Budget combines tight public expenditure restraint with measures to raise revenue”* (November 1993 FSBR 1994-95, p. 5). According to Devries et al., *“The medium-term goal defined by the 1994-95 Budget was to achieve budget balance by the end of the 1990s. The reason for delaying consolidation until 1994/95 was, apparently, to avoid disrupting the economic recovery following the recession in the early 1990s.”*

Data about fiscal components are taken from the IMF Recent Economic Developments 1995, p. 25-26. Data about public spending are taken from the FSBR 1994-1995, p. 119, Table 6.5. These are the same sources used to classify also the other two waves of reform, including the November 1993 Budget outlined below for the fiscal year (FY) 1994.

United Kingdom 1994

In 1994, while part of the corrections decided upon in the March 1993 Budget are implemented, new measures are announced following the motivation outlined above (IMF Recent Economic Development 1995). For what concerns spending, the November 1993 Budget seems to introduce a multi-year reduction plan that does not simply stop in FY 94/95 as Devries et al. (2011) describe. In fact, the Table 6.5 in the FSBR 1995-1996 (p. 119) shows the whole evolution of spending cuts making clear that new measures will be introduced in FY 95/96 and 96/97. However to be as close as possible to Devries et al. we only take into account the impact of measures on F.Y. 1994-95.

Notes:

- The spending of about £ 0.0225 bn concerning DOE – Local Government includes payments of Revenue Support Grant and National Non-Domestic Rates to English local authorities (footnote 2, p.119, Table 6.5 of FSBR 1995-1996).

There are some measures coming from the November 1993 Budget that were motivated by the will to reduce deficit and entered in office after November 1994 (hence they were part of the 1995 FY). They were not taken into account by Devries et al. (2011) and amount to £ 3.925 billion. We found data about the latter in FSBR 1995/1996 Table 5B.2, p. 107. We decided not to include them since they are already included in the announcements of the previous Budget. In the same document there is record of all the revenues measures approved in the November 1994 Budget that seem to be exogenous and were not considered by Devries et al. (2011). However, in order to be consistent with Devries et al. (2011), we don't take into account these additional revenues measures.

Notes:

- We considered the measures in the November 1994 Budget exogenous since the FSBR 95/96 p.8 claims: *“They contribute to the Government's strategy for strengthening the supply side. This aims to make the economy more responsive to market disciplines by enlarging the market sector, increasing competition, deregulating, and improving the climate for enterprises”*.

United Kingdom 1996

In the November 1995 Budget, fiscal consolidation measures were announced for the FY 1996-97 and included significant spending cuts. This consolidation is motivated by deficit reduction as the Government Budget Speech points out. Data about fiscal components are found in the FSBR 1996-1997. For what concerns spending see Table 1.6, p. 12.

Notes:

- Unlike Devries et al. (2011), we believe that the revenues measures introduced in November 1995 are intended to boost long-run growth. Indeed, the “*Budget continues the work of recent years to promote sustainable economic growth with low inflation. [...] The Budget will ensure that the PSBR continues to decline. And it will help the economy to work better by improving incentives for individuals, ensuring better value for money from public spending and delivering services more efficiently in partnership with the public sector*” (p. 5). Revenues are presented in Table 1.5, p.11, of the FSBR 1996-1997. However in order to stick with Devries et al. we don't include them.

United Kingdom 1997

“*The July 1997 Budget of the newly elected (New Labour) government introduced a five-year fiscal consolidation plan motivated by reducing a large inherited budget deficit*” (Devries et al., referring to 1997 Budget Speech explains, p. 1). Hence, together with unexpected fiscal consolidation measures implemented in 1997, there were announcements of future fiscal corrections for 1998-2000.

Data about fiscal components are taken from July 1997 Budget, p. 40-41, Table 2.2. Data about increase in spending following the implementation of the Welfare to Work program are found at p. 33. For what concerns revenues, we found the record of all Taxation and National Insurance Contribution measures in the 1997-98 Budget, Table 1.4, p. 12. One concern arises since the calendar year allocation for year 2000 is not considered by Devries et al. (2011). Given that we are not sure whether there are some expansionary measures that more than compensate the allocation, we decided not to include the year. Moreover, we must take into account the revenues generated by changes in spending. The aggregate amount of the latter is reported at p. 6. We also found information about measures that increase revenues and are included in the Spend to Save Program as suggested by the 1997-98 Budget, footnote 3, p. 96. Their total amount in the three years is £ 2.443 billion as the “*Audit of Assumptions for the Pre-Budget 2000 Report*” states, and we allocated them in the years approximating the trend of the aggregate amount displayed in the 1997-98 Budget (Table 5.2, p. 96). The remainder of the revenues increase generated by spending cuts concerns the reduction of gross trading surplus of local authorities (see footnote 3 at p. 96). Finally, there is a clear mistake in Devries et al. (2011) since they do not take into account the calendar year allocation of the spending measures in the 1996-1997 Budget in order to compute the total impact of measures. We included them in order to be consistent with our methodology.

Notes:

- The value of corrections on the revenue side implemented in 1997 and reported by Devries is taken from a dubious table. The Table that is used for the other years is not considered.
- For what concerns the changes in spending announced in the November 1996 Budget, Devries is not consistent with previous years. In fact, he includes also the GGE(X) and not only the Control Total. Moreover, the aggregate is displayed for the period until 2000, while disaggregated quantities are provided only for 97-98 and 98-99.
- The transfers observed in 1997, 1998 and 1999 concerning the Welfare to Work Program (£ -0.15 billion, £ -0.8 billion, £ -0.25 billion, respectively) include a New Deal for young people and new schools.

United Kingdom 2010

A first budget was set out in March 2010 by the Brown Ministry. In May 2010, David Cameron formed a new government, which implemented additional budget measures in June 2010. The objective of fiscal policy was announced already in the Convergence Programme for the United Kingdom (January 2010, p. 4): *“Setting a credible consolidation path to ensure sustainable public finances is a key element of the Government’s macroeconomic strategy, and is essential for economic stability and the long-term health of the economy. Chapter 4 sets out the Government’s plans for fiscal consolidation. As confidence in recovery grows and financial sector conditions normalize, the economy’s reliance on fiscal support will diminish. This will allow fiscal support to be withdrawn, gradually at first, so as not to harm recovery”*. The motivation of the 2010 budget package can be summarized with the statement *“The Government is acting to ensure sound public finances to provide a stable platform for growth and maintain macroeconomic stability”* (Budget 2010, Securing the recovery, March 2010, p. 1). The new Budget set out in June 2010 confirms: *“the Government will carry out Britain’s unavoidable deficit reduction plan in a way that strengthens and unites the country”* (Budget 2010, June 2010, p. 1).

Notes:

- The decomposition of the June 2010 Budget can be found at p. 40 of the Budget 2010 (June).

United Kingdom 2011

“In the June Budget 2010, the Government took action to re-build the British economy based on its values of responsibility, freedom and fairness. Through the Budget and the Spending Review, the Government set out an accelerated plan to reduce the deficit. This Budget confirms that the Government is continuing this course, and now accelerates the process of reforming the British economy, to achieve a new model of sustainable and balanced growth. This Budget sets out the action the Government will take in three areas: a strong and stable economy, growth and fairness” (Budget 2011, March 2011, p. 1).

United Kingdom 2012

The Budget 2012 (March 2012, p. 1) states: *“the Government has taken decisive action to protect the economy and has set out a comprehensive strategy to achieve strong, sustainable and balanced growth, based on [among others] fiscal consolidation to return the public finances to a sustainable position and meet the Government’s fiscal mandate”*. The plan announced in the Budget 2012 (pp. 7 and 51) consisted in an initial expansion on the revenue and on the spending side accompanied by announcements of fiscal restraint in the subsequent years.

United Kingdom 2013

United Kingdom *“Budget 2013 announces further detail on the Government’s deficit reduction plans”* (Budget 2013, March 2013, p. 1) started in previous years.

United Kingdom 2014

“This [2014] Budget sets out further action to secure the recovery and build a resilient economy. The government is continuing to take difficult decisions to put the public finances on a sustainable path. The Budget supports businesses to invest, export, and create jobs, and cuts taxes for hardworking people – laying the foundations for sustainable economic growth. The Budget sets out the most radical reforms to saving for a generation, providing security for families to plan for their future.”

(2014 Budget, p. 1). From this motivation followed a package of both expansionary and fiscal consolidation measures.

Final Notes:

- Notes on 1983-1993 (from Devries et al. (2011)). During this period, while fiscal deficits did fall, the decline was not driven by tax hikes and spending cuts motivated by deficit reduction. During 1983-84, the *OECD Economic Survey* 1984/85 notes that “Given the faster-than-expected upturn in activity, the failure in 1983/84 to continue the reduction in the PSBR which had been achieved in the two previous years represented a relaxation of fiscal conditions relative to what had been envisaged” (p. 13). During 1984-85, although the fiscal deficit fell as a share of GDP, this was not primarily driven by tax and spending measures. As the *OECD Economic Survey* 1985/86 notes, plans for fiscal consolidation in 1984-85 were hampered by large slippages associated with “the cost of the miners’ strike, which was estimated to have added £2.75 billion to total borrowing” (p. 15) (about 1 percent of GDP). In addition, a number of tax changes were introduced, but, as the *OECD Economic Survey* 1985 notes, “The overall macroeconomic effect of the Budget is difficult to gauge because of both the large number and the complexity of the tax changes being introduced” (p. 15). Finally, the IMF 1984 Staff Report (p. 9) notes that “asset sales, and oil revenues inflated by the depreciation of sterling in 1984/85, reduced the PSBR,” but does not attribute the decline in the PSBR to tax rate increases or spending cuts. For 1985-86, the *OECD Economic Survey* 1985/86 reports no significant tax hikes or spending cuts introduced in 1986/87, with public spending in the 1986/87 budget “unchanged from previous plans” (p. 17). There was also a cut in the basic rate of personal income tax by 1 percentage point in 1986 (*OECD Economic Survey* 1986/87, p. 23). Nevertheless, fiscal outcomes improved unexpectedly in 1986/87, particularly on the revenue side. In particular, “the PSBR for 1986/87 was less than half of that envisaged in the initial budget and about £2.5 billion below that for the year before” (*OECD Economic Survey* 1986/87, p. 21). The key contributor to this favorable outcome was a surge in corporate taxes, the reasons for which were “not fully understood” (p. 21). Perhaps, the Survey suggested, “several years of rising profits ... have led to a situation where a substantial number of companies have crossed from being tax-exhausted to tax paying” (p. 21). The surge in corporate revenues in 1986 also coincided with an increase in stock market activity associated with measures that deregulated financial markets (the “Big Bang”).
- We excluded the year 2009 because it seems to be endogenous, as described in the following lines taken from official documents. “*In current economic circumstances, it is more important than usual for fiscal policy to play a role in supporting economic activity*” (Convergence Programme for the United Kingdom, December 2008, p. 21). Fiscal policy is considered as complementary to monetary policy in limiting “*the extent and duration of the downturn*” (p. 21). “*Fiscal policy will need to play a more significant role in the year ahead in helping to support demand within the economy [...] The right approach is to allow public debt to rise to absorb the shock and allow fiscal policy to support the economy, until adjustment has been completed and debt is set on a declining path as a proportion of GDP*” (p. 29). “*Building on the strategy set out at the 2008 Pre-Budget Report, the Budget announces targeted discretionary support for the economy through these difficult times, while continuing sustained fiscal consolidation from 2010-11 when the economy is expected to be recovering and able to support a reduction in borrowing*” (Budget 2009, April 2009, p. 1).

UNITED STATES

Important remarks:

- The U.S. fiscal year begins on October 1st of the previous calendar year and ends on September 30th of the year with which it is numbered.
- The sources consulted for the United States are: Congressional Budget Office (CBO) reports, Hipple (2010) “Self-employment in the United States”, Romer and Romer (2009), various issues of Social Security Bulletin and Budget of the United States Government.

United States 1978

As stated in Devries et al., fiscal consolidation “*was motivated by deficit reduction and fiscal sustainability.*” The 1978 tax-based consolidation consisted in an increase in Social Security contribution, following 1972 Social Security Amendment that raised the social security tax base on January 1973 and programmed two increases in the tax rate, one on January 1, 1973, one on January

1, 1978 (Romer and Romer 2009, p. 57). As in Romer and Romer we record the latter one as exogenous and announced consolidation. The hike in tax rate was expected to raise \$ 2.9 billion in calendar year 1978 (Romer and Romer, p. 57 using data from 1979 Budget). Since the amendment raised the tax rate for both employers and employees (1972 Treasury Annual Report p. 41) and social security contributions are divided in equal share among the two categories, we split the tax increase equally between them.

In this year we also record announcements of fiscal consolidations to be carried out in future years. The 1977 Social Security Amendment announced an increase in the tax rate in January 1979, 1981 and 1982 and an increase in the tax base in January 1979, 1980, 1981 (Romer and Romer, 2009, p.64). In 1980, the impact of the increase in the tax base was \$ 1.7 billion, as estimated by Romer and Romer using data from 1980 Budget. Since the base rose for employees and employers (Social Security Bulletin, March 1978, p.17) and the social security tax is paid half by the employers and half by the employees, we record \$ 0.85 billion under corporate taxes, and the rest under personal income taxes. In 1981, instead, the increase in the social security tax rate and the extension of the tax base projected in the 1977 Amendment had a budgetary impact of \$ 17.2 billion (Romer and Romer, 2009, p. 64, using data of 1982 Budget).

Notes:

- The announced increase in revenues for the year 1981 came, for an amount of about \$9.35 billion, from social security tax rate and tax base increase (1977 Amendment). The tax base increased for employers and employees, but the tax rate increased for self-employed as well. To simplify we assumed that the tax rate for self-employed and employees is the same. In reality there is a small difference between the two (Social Security Bulletin, March 1978, pp. 17). In 1980 self-employed were 8.70 percent of total workers according to Hipple, "Self-employment in the United States", 2010. Corporate share is calculated as follows: $17.2 * 8.70\% + (17.2 * (1 - 8.70\%)) / 2$.

United States 1981

In August 1981 the Economic Recovery Tax Act (ERTA-81) was passed, projecting a series of private and corporate tax cuts over a three-year period. As explained by Romer and Romer (2009, p. 68), these measures were "*largely for ideological or long-term reasons, not to return economic growth to normal. A major tax cut had been a centerpiece of Reagan's presidential campaign*" (p. 68). Regarding 1981 (calendar year), the cuts had a budgetary impact of negative \$ 8.9 billion (1983 Budget, p. 4-10).

United States 1983

As Romer and Romer (2009) argue, the tax increase in 1985 follows from the Social Security Amendments of 1983 (the year in which it is recorded in the excel file), motivated by deficit reduction: "*The motivation for the changes was concern about the soundness of the [Social Security] system. As in 1977, the Social Security trust fund was projected to be exhausted within a few years, and the system faced a large projected long-term deficit*". Regarding this measure, we noticed that Romer and Romer (2009) and consequently Devries et al. (2011) consider the realized levy from the reform instead of the announced level of revenues. Therefore, we construct a new version of disaggregated shocks that is consistent with the procedure we follow. In 1983 changes in tax rates were announced with a long time horizon that scheduled the changes over a 7 years period. Given our aim, we try to take the expected tax change whenever possible. However, not all the expected revenues yield by the reform are reported in year 1983, as would be ideal for our purposes. Thus, we take as announced in 1983 the first projected value we have for a year in which the Amendment has effect. Moreover, Romer and Romer (2009) use the revenues of the first fiscal year where the reform

has been in office. Since we want to be consistent with Devries et al. (2011), we need to take the tax levy for the calendar year in which the reform is introduced.

Notes:

- The OASDHI is a Federal tax withheld from the paychecks of all covered workers, which includes most workers with the exception of public employees and certain union employees. Self-employed persons are also required to pay the tax. OASDHI is funded by a payroll tax known as the Federal Insurance Contribution Act (FICA) tax.
- Looking at the Budget reports of the years going from 1983 to 1985, we noticed that the projections for the fiscal reforms display a change in the time schedule of the tax rate increases. In fact, until the 1984 Budget, the tables report a scheduled increase of the tax rate in 1985 from 13.4% to 14.1%. The 1985 Budget changes this pattern introducing a 0.6% increase (from 13.4 to 14.0) in 1984 and a further increase of 0.1% in 1985. We found apparently no information about the motivation of this change and we cannot tell whether it was announced in 1983 or in the years between 83 and 85. The Social Security Bulletin 1983 does not schedule this change. We decided to treat it as an announced change allowing for the possibility it was scheduled in 1984. Since we have projections for the change between 13.4% to 14.0%, we divide by 7 the expected revenues and we report them to the calendar year. We used data from the 1984 Budget, which is the first that provides expected revenues for both fiscal 1985 and 1986. A further complication comes from the change in the tax credit rate. In fact, as Romer and Romer (2009) points out and is reported in the “Social Security Bulletin, July 1983”, the tax credit is reduced by 0.3%. This implies that the total variation in the social security tax rate is 0.4%. The total change in revenues is therefore \$ 6.4 billion.
- The OASDHI tax is equally divided between employers (on payrolls) and employees (on earned incomes). Self-employed workers pay the full tax. According to this repartition of the payments, we can reconstruct the corporate and personal components of the whole tax. Hipple (2010) using data from the CPS estimates the percentage of self-employed over the total labour force in 1985 (it is 8.7%). Using this percentage, we compute the share of the tax paid by self-employed, which is \$ 0.55 billion (6.4×0.087). Therefore, the personal tax amounts to \$ 2.92 billion ($5.85/2$) and the corporate one to \$ 3.48 billion.

The Social Security Amendment of 1983 also announced a tax hike for the year 1986 – i.e. three years ahead. The same arguments applied above for the measures implemented in 1985 also holds here.

Notes:

- In this case there are no doubts on the announcement since the tax rate increase is clearly scheduled in the Social Security Bulletin, 1983. In order to derive the total amount generated by the 1983 Social Security Amendment for the year 1986 (\$3.7 bn), the procedure we followed is the same as the one explained in the footnote above. We used data from the 1985 Budget. Also concerning how the total revenue increase is split between personal income tax and corporate tax, we implemented the same procedure outlined in the footnote above (the third one).

Finally, an increase in revenues of 14.7 billion was announced in 1983 in the Social Security Amendment to be implemented in 1988. Again, the figure of the fiscal adjustment is consistent with our procedure, and is determined following what we said above.

United States 1987

The Tax Reform Act of 1986 signed in October 1986 lowered individual income taxes by \$ 7.2 billion in 1988. As explained by Devries et al. (referring to Romer and Romer (2009, pg. 75)), “*this tax cut was motivated by the need to simplify the tax system, and not in response to short-term economic developments*”.

Notes:

- As the reform was signed in October 1986 it is considered announced in 1987 in our time-framework.

United States 1988

The Omnibus Budget Reconciliation Act of 1987 (signed in December 1987) prescribed a(n) (unexpected) tax hike, “*motivated by deficit reduction and putting the social security system on a sustainable footing, as discussed by Romer and Romer (2009, pp. 77-79)*” (Devries et al., 2011). On

the spending side, a two-year plan of spending cuts was announced in 1988: “*The tax increases in the act were part of a budget agreement between the president and Congress [...] [which] also called for [...] reductions in spending relative to its projected path over a two-year period (p. 1-6)*” (Romer and Romer, 2009). However, to be consistent with Devries et al., we only include the effects of this plan pertaining to 1988, and we classify them according to the Budget Outlook 89-93 (p. 59).

Notes:

- As the Omnibus Budget Reconciliation Act (OBRA 97) was signed in December 1987, it is considered unexpected for 1988 in our time-framework.
- The not-yet-classified (NYC) tax includes restrictions on an estate tax deduction for proceeds of a sale to an employee stock ownership plan and certain IRS and BATF user fees (100th Congress, 1st Session House of Representatives Report No. 100-391, 10/26/87, p. 801).
- On the spending side, and differently from Devries et al., we excluded 9 bn coming from asset sales and debt service. Moreover, we classified the hike in User Fees as a revenue increase, since the economic effects of this measure are closer to tax than spending.

United States 1990

In 1990, a tax hike occurred that was motivated by “*reducing the budgetary deficit and putting the social security system on a sustainable path*” (Devries et al. 2011). The tax consisted in an increase of the combined employer-employee old age and survivors, disability and hospital insurance (OASDHI) tax rate from 15.02% to 15.3%. Even though this policy was anticipated from 1983, we code this shock as unanticipated because the time horizon used is of three years. We classify these tax corrections according to CBO, 1991 Budget p. A-49. However, our classification differs from Romer and Romer (2009) and consequently Devries et al. (2011), in light of what we already explained in the year 1983 for the Social Security Amendment.

In addition to this policy, the Omnibus Budget Reconciliation Act of 1990 (OBRA-90) had repercussions on the late months of this year. The Omnibus Budget Reconciliation Act 1990 was a five-year fiscal consolidation program enacted on November 5, 1990 (The 1990 Budget Agreement: An interim Assessment, p.6). The act was motivated by deficit reduction, as expressed in the 1991 Economic Report of the President: “*The Omnibus Budget Reconciliation Act of 1990 contains the largest and most comprehensive deficit reduction package in U.S. history [...] Economic theory and empirical evidence indicate that expectations of deficit reduction in future years, if the deficit reduction commitment is credible, can lower interest rates as financial market participants observe that the government will be lowering its future demand in the credit market*”. The implied tax changes implemented in 1990 are classified according to CBO (1998), Projecting Federal Tax Revenues and the Effect of Changes in tax Law, p.31. The implied spending cuts in 1990, all projected in OBRA-90, are instead classified according to CBO (1990), The Budget Agreement: An Interim Assessment (Table 2, p.6). The same sources are used to categorize the different tax and spending corrections implemented in the years 1991-1995 but announced in 1990 through the OBRA-90.

Notes:

- Notice that Romer and Romer (2009) rely on a table included in the Budget 1992 (Part three, p.7) to estimate the effects of OBRA-90. Devries et al. (2011) instead take the CBO report: The 1990 Budget Agreement: An interim Assessment, p.6, which slightly differs from the Romer and Romer (2009) estimate. We take the disaggregated projections of this policy from the CBO 1998 document, Projecting Federal Tax Revenues and the Effects of Changes in Tax Law, p.31 because the aggregate perfectly coincides with the Devries et al. (2011) data and because it allows to disentangle the revenue components with sufficient level of detail.
- Notice that in CBO (1990), The Budget Agreement: An interim Assessment, p.6, we do not have a sufficient level of detail to disentangle the spending effects by component in every single year. What we do have is the decomposition of spending in every single year divided in 'entitlements and other mandatory spending', 'enacted appropriations' and 'discretionary spending'. However, we have a good level of detail for the cumulative spending cuts. For this reason

we assumed that the cumulative five-year changes of spending were spread across the five years proportionally to their closest aggregate flow of spending.

- Concerning the Social Security tax (OASDHI) anticipated from the 1983 Social Security Amendment, we computed its implied revenue change and decomposition by following what we did in 1983. The revenue change amounts to \$ 7.8 bn ($5.5 + 0.25 * 9.2 = \$7.8$ billion). As for the decomposition of this change between corporate and personal taxes, we attribute $2.9% * 7.8 + (7.8 - 2.9% * 7.8) / 2 = \$ 4$ billion to corporate taxes, given that the tax is half paid by the employer and that the percentage of the self-employed population in 1990 was of 2.9%, US Self-employment p.20 and The budget for fiscal year 1989, p.4-20.

United States 1993

In 1993, measures of fiscal consolidation were enacted through the Omnibus Budget Reconciliation Act of 1993 (OBRA-93), approved in August. The act consisted in a plan of spending cuts and tax hikes to be implemented over a four fiscal year period (1994-1998), “*motivated by the need to reduce a large inherited budget deficit*” (Devries et al., 2011). These measures were combined with the ones already planned for 1993 in OBRA-90 (remember that since OBRA-90 measures were announced in 1990, they were recorded in that year in the excel file). For what concerns the year 1993, we classify tax corrections from OBRA-93 according to CBO (1994)—An Economic Analysis of the Revenue Provisions of OBRA-93 (pp. 2-3). As for changes in spending from the OBRA-93, we follow the CBO (1993) – Economic and Budget Outlook, September 1993 (p. 29). The same sources were used for classifying the corrections implemented in the years 1994-1998 but announced in 1993 via the OBRA-93. Note that from 1996 to 1998, the OBRA-90 is not playing any role anymore, while there are measures from OBRA-93 that take place in those years.

Notes:

- In the CBO (1993) – Economic and Budget Outlook, September 1993, amounts are reported for fiscal years (October-September).
- Concerning the spending cuts implemented in 1993, we excluded revenues coming from FCC electromagnetic spectrum auction as they can be considered as assets sale.
- We note that in Devries et al. the \$ -0.05 billion for increased outlays from Earned Income Tax Credit (OBRA-93) is recorded twice, on the spending side and on the tax side. We decided to include it just once as lower tax credit.

United States 2011

In 2011, the US fiscal policy was subject to an abrupt change and shifted from providing huge emergency fiscal stimuli to the attempt of reducing the fast accumulating public debt. In 2010, the country was running a federal public debt of almost 70% of GDP, with a fiscal deficit of over 10% of GDP. The weakening of public finances was not only due to the fiscal stimulus implemented by the government during the economic crisis, but also to previous policies. Tax cuts under the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003 decreased government revenues below the levels prevailing in the 90s. At the same time, public spending rose after 2001 reflecting increased appropriations for defence and homeland security and the introduction of the Medicare D prescription drug programme for the elderly (OECD Economic Survey 2012 p.20). Finally, the abandonment of the pay-as-you-go (PAYGO) budgeting rule did not help in strengthening the fiscal position. As a result, before the cycle hit, the United States were already running a 2.5% of GDP deficit. After the crisis the government responded with extraordinary fiscal interventions (see first footnote below), while the weakening of taxable income, the large revenue losses from asset markets and increase in unemployment compensation contributed in aggravating the deterioration in public finances. After the worse years of the crisis, according to the Economic Report of the President of February 2012 (p.30), in 2011 the Administration and Congress, recognizing the economic risks associated with increased budget deficits, agreed on a \$1 trillion deficit reduction package in the Budget Control Act of 2011. The act

established caps on discretionary spending through 2021, allowed additional spending from “program integrity” and subsidies for students. It also created a Congressional Joint Select Committee on Deficit Reduction to propose further deficit reductions of 1.5 trillion over 10 years. In case the Committee did not indicate a comprehensive plan for further spending cuts, the act provided for automatic across-the-board automatic spending cuts by at least 1.2 trillion over a 10-year period (CBO Analysis of Budget Control Act, Aug 1 2011).

Notes:

- We should mention that by March 2010, the core of the Healthcare act was also implemented, together with the education reconciliation act (Economic Report of the president, Feb 2011, p.76). Most of the impact of the fiscal act was included in the healthcare act. Among other things, it established a mandate for most residents of the US to obtain health insurance, set up insurance exchange markets, expanded eligibility for Medicaid, reduced the growth for Medicare's payments, imposed tax on insurance plans with relatively high premiums and made various other changes to the federal tax code. Although this act is considered by the administration as a strong instrument to achieve deficit reduction (see the Economic Report of the President, February 2010, p.150, or Obama Address to Congress on September 9, 2009) we do not consider it in our analysis for many reasons. First of all, we are interested in fiscal changes *primarily* driven by a deficit-reduction motivation, while we believe the healthcare reform and its amendments are partly related to inequality and ideological reasons (see for instance the speech of the president when signing the Health Insurance Reform Bill, <https://www.whitehouse.gov/the-press-office/remarks-president-and-vice-president-signing-health-insurance-reform-bill>). Second, although the reform is predicted to achieve substantial deficit reduction in the long term (141\$ billion by 2019 and 1\$ trillion in the next decade), in the short time horizon considered in our the model (5 years) the reform does not achieve any substantial savings (CBO HR 4872, Reconciliation Act of 2010, Table 2 and OECD Economic Survey pp.29-30).

The Budget Control Act, enacted on the 2nd August 2011 (and hence recorded as announced measure in 2011), started to have its full effect in 2012. In 2012, the Economic Report of the President wrote that “*recognizing the economic risks associated with sustained large budget deficits, the Obama Administration has made deficit reduction a priority*”.

United States 2013

On January 2, 2013 a long debate about the so called “fiscal cliff” came to an end. The fiscal cliff was a combination of expiring tax cuts and across-the-board government spending cuts scheduled to become effective Dec. 31, 2012. On the revenue side, the Bush tax cuts of 2001 and 2003 (which had been extended for two years by the 2010 Tax Relief Act), were to expire on December 31, 2012. Under the baseline scenario in which all these tax cuts expired, the CBO calculated an expected increase in revenues of \$500 billion (equal to a shock of 2.7% of GDP) in 2013. According to the CBO Update to the Budget and Economic Outlook for 2012 to 2022, the adjustment shock was so impressive that “*whether the lawmakers allow scheduled policy changes to take effect or alter them will play a crucial role in determining the path of the federal budget over the next decade and the outlook of the economy*”. On the spending side, the goal outlined in the Budget Control Act of 2011 was to cut at least \$1.5 trillion over the coming 10 years, (avoiding much larger "sequestration" across-the-board cuts which would be equal to the debt ceiling increase of \$1.2 trillion incurred by Congress through a failure to produce a deficit reduction bill), therefore bypassing Congressional debate and resulting in a passed bill by December 23, 2011. On November 21, the committee concluded its work, issuing a statement that began with the following: “*After months of hard work and intense deliberations, we have come to the conclusion today that it will not be possible to make any bipartisan agreement available to the public before the committee’s deadline*”. The committee was formally terminated on January 31, 2012. As a consequence, the “budget sequestration” was scheduled to take effect from January 2013.

Notes:

- Concerning the Bush tax cuts of 2001 and 2003, which were extended for two years by the Tax Relief Act of 2010, the Economic report of the President 2011 (pg. 23) states: “*Government policy has supported the recovery during*

2009 and 2010, and the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act, the compromise tax framework signed into law by the President on December 17, 2010, will help the economy in 2011. The position of state and local governments, however, remains difficult. At the same time, long-run fiscal responsibility is crucial, and the Administration has taken a number of steps to reduce deficits in coming years”.

However, on January 2013 the American Taxpayer Relief Act 2012 was passed, avoiding some of the automatic sunset provisions scheduled to take effect in January. Hence, the actual impact of the revenue fiscal consolidation was \$ 28 billion in 2013 and \$ 20 billion in 2014, equivalent to 0.16 and 0.12 percent of GDP respectively.

Notes:

- Notice that by looking at the official CBO estimates of the American Taxpayer Relief Act 2012, it could seem that this act was a fiscal stimulus given the fact that they compute the act to have a 1.7 trillion of deficit expansion by 2017 and a deficit increase of 329 billion in 2013. However, like all of CBO’s cost estimates, the estimate for this legislation shows the effects of the legislation *relative to current law at the time they did the estimate*. Indeed, relative to what would have occurred under the laws previously in effect in 2012 (providing for the expiration of the Bush tax cuts), this legislation would increase budget deficits in coming years. However, relative to what would have occurred if most tax and spending policies that were in effect in 2012 were continued, this legislation will reduce budget deficits in coming years. Since the model in this paper refers to a policy shock relative to the *fiscal pressure of the previous year*, we consider this act to be in fact a fiscal consolidation. In order to compute the effect of the new act compared to the policy in place during 2012, we take as a reference the estimate for the impact and compare it to the “alternative scenario” estimated in the “Update to the Budget and Economic Outlook: Fiscal Years 2012 to 2022” p. 22, which assumed that the Bush tax cuts, the Alternative Minimum Tax “patch”, the business tax extenders and other minor effects legislation were all permanent. We have found these calculations at http://www.whitehouse.gov/sites/default/files/omb/communications/misc/cboscore_hr8_20130101.pdf.

As for the automatic spending cuts to United States federal government spending in particular categories of outlays that were initially set to begin on January 1, 2013 (an austerity fiscal policy contained in the Budget Control Act of 2011 - BCA), were postponed by two months by the American Taxpayer Relief Act of 2012 until March 1. Due to the absence of an agreement by the Congress on this matter, after March the automatic spending cuts went into effect. The reductions in outlays were of \$42.7 billion during fiscal year 2013, equivalent to 0.25 percent of GDP (The Budget and Economic Outlook: Fiscal Years 2013 to 2023 p.14, <http://www.cbo.gov/publication/43907>). Since the exact amount of the effect in 2013 was highly uncertain (it is not even computed in the CBO cost estimate of the Budget Control Act in Table 3) and even its actual enactment was not sure until March 2013, we code this shock as unanticipated.

Notes:

- In December 2013, the Bipartisan Budget Act of 2013 changed the sequestration caps for FY2014 and FY2015. This deal would eliminate some of the spending cuts required by the sequester by \$26.3 billion of the cuts scheduled to happen in January and \$21.6 billion of the cuts scheduled to happen in 2015 (see Table 1 p.2 of the CBO Cost Estimate of the Bipartisan Budget Act). Federal spending would thus be larger in these two years, but would be less in subsequent years until 2023, due to other provisions such as imposing sequester cuts in 2022 and 2023. Given this recent development, the Bipartisan Budget Act of 2013 could be interpreted as a “change of the policy announcement” during the year of implementation, which in our model would be coded as a negative unexpected shock compensating the sequester announcement for 2014 and 2015. However, as stated above, the automatic spending cuts decided in the Budget Control Act are not coded as an anticipated shock in our model for many reasons. First of all, because the Budget Control Act did not even compute a hypothetical impact over the years in their cost estimate of the Act at the time of its enactment. Second, because the whole political process around the confirmation of these cuts was extremely uncertain. Third, because even in the CBO Budget and Economic Outlook 2013 the full impact of the sequester was not even computed in the baseline scenario but only as an “alternative” policy effect (See Table 1-7 p.33).

Final Notes:

- Notes on 2000-2009 by Devries et al.: “No fiscal consolidation occurred during 2000-2009. The Balanced Budget Act of 1997 did introduce spending cuts affecting this period, but the associated budgetary savings (estimated by the

CBO— Budgetary Implications of the Balanced Budget Act of 1997, December 1997) were offset by the budgetary cost of the Tax Payer Relief Act of 1997 (estimated by the CBO—An Economic Analysis of the Taxpayer Relief Act of 1997, April 2000). Romer and Romer (2009, pp. 82-83) confirm that neither of these two acts were primarily motivated by short term fluctuations. In addition, the Economic Growth and Tax Relief Reconciliation Act of 2001 introduced further tax cuts. Overall, therefore, we conclude that no net fiscal consolidation motivated by deficit reduction occurred during 2000-2009.”

- We do not include 2009 and 2010 because they are years of fiscal stimulus. According to the 2010 Budget, “*as the economy recovers from the financial crisis and recession, treasury has continued its efforts to restore growth and create jobs through implementation of the Housing and Economic Recovery Act of 2008 (HERA), the Emergency Economic Stabilization Act of 2008 (EESA), and the American Recovery and Reinvestment Act of 2009 (Recovery Act)*”. The latter act represented the largest countercyclical fiscal action in American history, providing tax cuts and increases in government spending equivalent to roughly 2 percent of GDP in 2009 and 2 percent of GDP in 2010 (Economic report of the president, February 2010, pp. 51-52).