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ECFIN Economic Brief

Exit strategy: is 1937/38 relevant?

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Introduction

There are widespread concerns that an early exit from monetary and fiscal policy stimulus would cause a relapse into recession. Some observers point to the 1937/38 recession in the United States as a warning.

According to the Chair of the US Council of Economic Advisers of the Obama Administration, Christina Romer (2009), fiscal and monetary stimulus were cut back too soon during the Great Depression, which then prompted a major setback. The Federal Reserve indeed doubled its reserve requirement in three steps in 1936 and 1937 on inflation worries. There was also fiscal tightening which resulted *inter alia* from the introduction of social security taxes and the unwinding of the pay-out of one-off 'bonuses' to World War One veterans by the Roosevelt Administration.

Romer warns that "the results of the fiscal and monetary double whammy in the precarious environment were disastrous" and that it "effectively added two years to the Depression". Based on this experience she urges policymakers to "beware of cutting back on stimulus too soon" at the current juncture. This message is widely echoed in the global blogosphere and press. To quote just one influential commentator, Paul Krugman (2010) warns in his January 4 New York Times Column that if "the calls we're already hearing for an end to stimulus" are heeded, "we'll be repeating the great mistake of 1937".

Are these warnings well founded? Is the comparison with the 1937/38 recession appropriate? Was the recession indeed the result of macroeconomic policy tightening or were other factors at play as well? How bad was that recession in the first place, and did it effectively prolong the Great Depression? And even if it did not, are there any lessons to be learnt from this episode? With a view to the need to design and time fiscal and monetary exits at this juncture, also in Europe, these and related questions will be addressed in this ECFIN Economic Brief. It will not give definite answers, but hopefully helps to put the ongoing discussion in perspective.

Summary

The 1937/38 recession in the United States is often quoted as a warning against premature exits from monetary and fiscal stimulus. The presumption is that the 1937/38 recession was indeed due to such a premature exit.

This Economic Brief presents evidence that goes against this view. The 1937/38 recession is equivalent to a downturn in 2016/17, which is obviously of little relevance now. Moreover, the cutback in policy stimulus at the time was not an early but rather a late exit, in the wake of an unduly late and timid entry.

Even more importantly, while the 1937/38 recession can be attributed to cut backs in policy stimulus to some extent, other factors appear to have been predominant. Notably, geopolitical tensions played a major role, along with adverse business confidence effects of Roosevelt's New Deal policies. Concerning the latter, the strengthening of wage bargaining power amid mass unemployment and heightened uncertainty over property rights were prominent.

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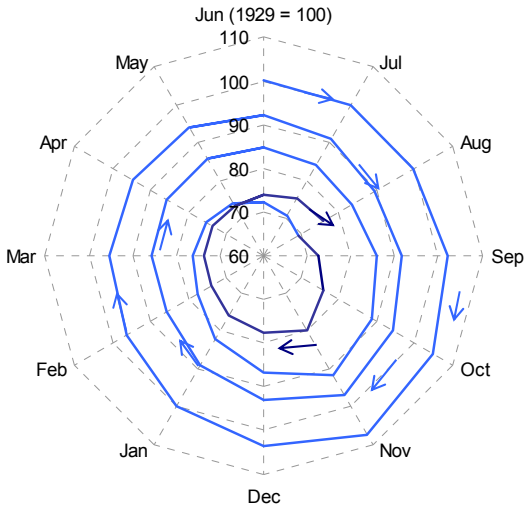
The Great Depression

Before examining the relevance of the 1937/1938 experience for the current situation, it may be useful to assess whether the Depression as a whole is an appropriate benchmark for the current situation in the first place. As several observers have demonstrated (see e.g. Helbling 2009, Almunia *et al.* 2009), in some ways it is, in others it is not.

A number of parallels can indeed be drawn. Both the Great Depression and the current recession followed a period of 'exuberance', characterised by rapid credit growth, soaring asset prices (both stocks and real estate) and excessive leveraging. Moreover, both episodes were triggered by a financial and banking crisis, with the epicentre of the shock located in the financial and economic core of the global economic system, the United States – with the stock market crash of 1929 being the most widely known event. In both cases, the transmission to the global economy was extremely rapid, resulting in a collapse in world trade. Indeed, on some measures, the shock to world trade was even stronger in the current episode than in the Great Depression – although its recovery is now also quicker (Graphs 1 and 2).

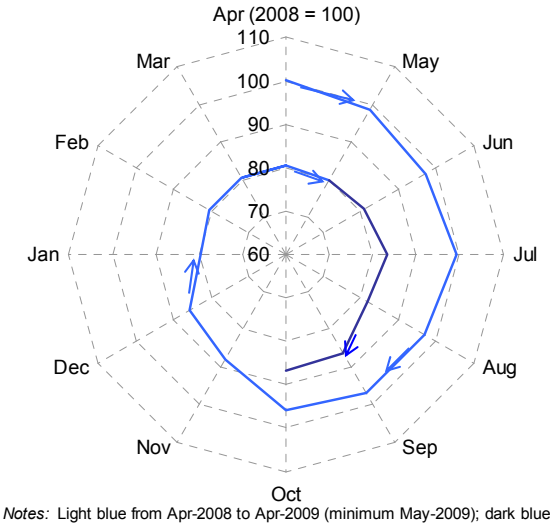
Despite these similarities, the differences between the two episodes are equally striking. While exuberance was a feature of the US economy in the late-1920s, this was less obvious in Europe, which thus looked less vulnerable. However, the crisis spread rapidly due to the gold standard which forced governments abroad to 'import' tight US monetary policy that triggered the 1929 crash. Moreover, unlike the current recession, the recession of the early 1930s deepened dramatically due to massive failures of banks in the US and Europe and muted or even perverse policy responses. In the 1930s there was no deposit insurance and bank runs were of the order of the day. The support from fiscal and monetary policy was weak, if not absent (see Graph 3 for a comparison with the current situation). A sharp decline in the aggregate price level in 1930-33 drove household, business and government balance sheets out of kilter. In the virtual absence of social security, massive increases in unemployment and social hardship unsettled the economy and society. And protectionism was more prevalent than during any other period of modern trade, which may explain why trade continued to contract years after the 1929 crash.

Graph 1: **The decline in world trade during the crisis of 1929-1933**



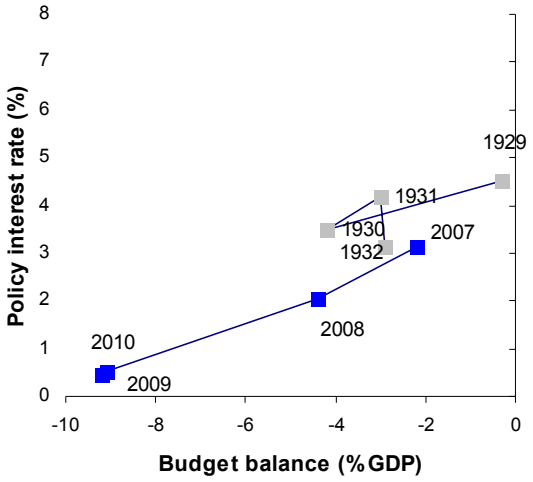
Notes: Light blue from Jun-1929 to Jul-1932 (minimum Aug-1929); dark blue from Aug-1932. *Source:* League of Nations Monthly Bulletin of Statistics from Eichengreen and O'Rourke (2009).

Graph 2: **The decline in world trade during the crisis of 2008-2009**



Notes: Light blue from Apr-2008 to Apr-2009 (minimum May-2009); dark blue from May-2009 *Source:* CPB the Netherlands World Trade Monitor

Graph 3: **Macroeconomic policy in the developed world**



Sources: Almunia *et al.* (2009), Federal Reserve, ECB, AMECO

Table 1: **US macroeconomic developments 1929-1940**

	% change		%		% of GDP
	Real GDP	GDP deflator	Unem-ploy-ment rate	Federal discount rate	Federal govern-ment balance
1929	6.1	na	3.2	5.2	0.9
1930	-8.4	-3.9	8.9	3.0	1.0
1931	-6.9	-9.9	15.9	2.1	-1.2
1932	-13.4	-11.4	23.6	2.8	-4.8
1933	-1.3	-2.6	24.9	2.5	-4.6
1934	11.6	4.9	21.7	1.5	-5.2
1935	8.9	2.0	20.1	1.5	-3.4
1936	13.1	1.1	17.0	1.5	-4.1
1937	5.8	3.7	14.3	1.3	-3.0
1938	-4.5	-1.9	19.0	1.0	-0.2
1939	8.5	-1.3	17.2	1.0	-3.0
1940	9.0	0.9	14.6	1.0	-2.7

Sources: Bureau of Economic Analysis, Bureau of the Budget, Homer and Sylla (1996)

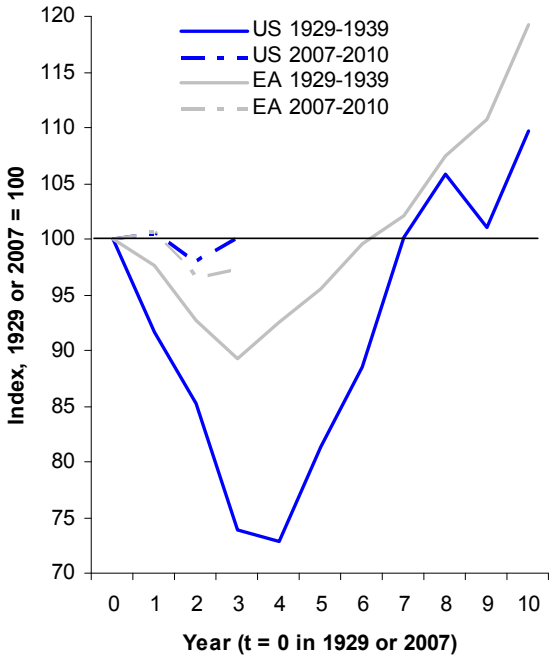
The 1937/38 recession in perspective

The 1937/38 recession should not be looked at in isolation. Table 1 summarises the development of economic growth, inflation and unemployment in the United States during the Great Depression. It clearly shows the extent of the downturn in the period 1930-33, with real GDP contracting by a cumulated 30%, and nominal GDP by over 50% due to a concomitant sharp drop in the overall price level. Unemployment soared from 3.2% in 1929 to almost 25% in 1933.

The period 1934-36 saw a brisk rebound in economic activity, somewhat in contrast with the general perception, with the output loss of the preceding downturn being recovered (although probably not in terms of trend growth). Unemployment fell from 25% to 17% and deflation ended. In 1937, however, activity sharply decelerated, followed by outright recession in 1938. While unemployment posted a further decline to 14% in 1937 in response to the recent boom, it soared to 19% in 1938. With some lag, deflation also resurrected.

As depicted in Graph 4, the 1937/38 recession was serious, indeed more pronounced than what is now dubbed the 'Great Recession' of 2008/09. But as the graph also shows, the recession occurred almost a decade after the 1929 peak in economic activity and at a stage when activity, as noted, had recovered its losses of the first three years of the Depression. This would be equivalent to a dip in activity in 2016-17.

Graph 4: **Real GDP in the Great Depression and the Great Recession, US and euro area**



Note: Data for 2010 are forecasts, EA for the period 1929-1939 includes: AT, BE, FI, FR, DE, IT, NL, IE, EL, ES. *Sources*: Bureau of Economic Analysis, Angus Maddison, AMECO.

That does not mean that the 1937/38 recession could, or should, not have been prevented. But it looks more accurate to qualify it as a "brief, even if

very unwelcome, interruption in the recovery" than "effectively adding two years to the Depression". Indeed, the output loss of the 1937/38 recession is dwarfed by that of the preceding period 1930-1933. The reason why this recession may nonetheless have been traumatic is because it entailed an abrupt relapse into mass unemployment, but this may have had its own specific causes as will be shown below.

The role of economic policy

Is it correct that the 1937/38 recession – and *a fortiori* the long duration of the Great Depression – was due to an 'early exit' from macroeconomic policy stimulus? The latter two columns of Table 1 show the developments in the federal government fiscal position and the federal discount rate. What this suggests is that fiscal policy indeed turned restrictive in 1938, while the federal discount rate was actually cut in 1937 and 1938 (but the reserve requirement for banks was tightened). But a closer look at the data is necessary.

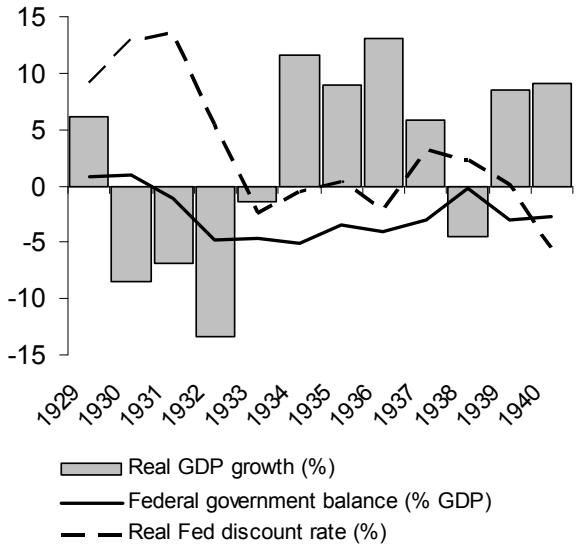
Gauging the policy stance

Graph 5 plots the development of monetary policy (gauged by the real discount rate computed by taking the nominal discount rate less the inflation rate in the subsequent year by way of a proxy for expected inflation) and fiscal policy stance (the fiscal balance as a share of GDP) against real GDP growth. From this graph clearly emerges the late and timid macroeconomic policy response – especially in comparison with the policy response in 2008/09 (Graph 6). While real GDP was collapsing in the period 1930-33, the Federal discount rate was cut way too slow and, with deflation taking root, it actually increased in real terms initially. A fall in the real rate came about only in 1933-34. Likewise, the Federal government balance was kept in surplus until 1930 and only by 1932 had it reached a deficit of close to 5% of GDP. As Romer (2009) rightly notes, fiscal and monetary stimulus eventually did boost the economy out of the Depression. In the period 1934-36 the recovery looked self-sustained and no further major easing was implemented. This changed in the next two years, when both monetary and fiscal policies were tightened.

In 1937/38 the federal discount rate was actually cut, not increased, and the real funds rate only rose due to deflation (in 1938 and 1939). But the reserve requirements of banks were doubled in 1937 on a presumption of 'excess reserves'. However, it is not firmly settled as to whether this has been a major factor behind the contraction in economic activity. For example, while the money stock did contract, there was little repercussion for corporate bond yields. The prime ((Aaa) rate actually fell from 3.1% in 1936 to 2.9% in 1938 (Homer and Sylla 1996, Table 47) although Baa yields did see an uptick of about 100 basis points in 1937/38 (Friedman and Schwartz 1963).

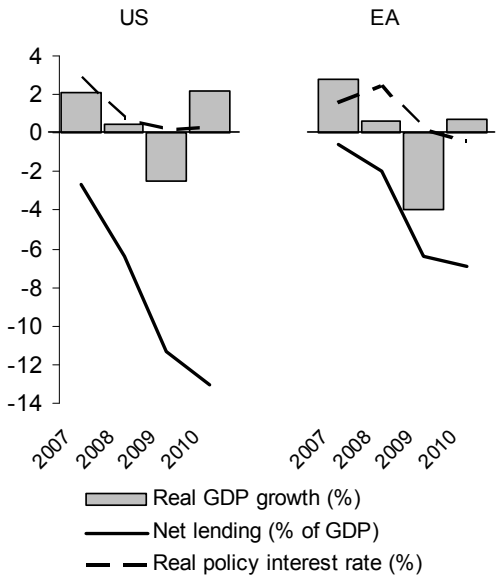
In light of the above, today's commentators usually consider fiscal policy as the culprit of the 1937/38 recession. The federal deficit indeed substantially shrunk in 1938. However, to what extent the 1937/38 recession can be attributed to this reversal of fiscal policy stimulus is an open question. For example, part of the apparent fiscal tightening may have been induced by the preceding boom, i.e. by automatic stabilisers. It is necessary to decompose the fiscal position in an induced component and a discretionary component, which, while of course a heroic exercise, can be attempted.

Graph 5: **US policy stance and GDP growth, 1929-40**



Sources: Bureau of Economic Analysis, Homer and Sylla (1996), US Census Bureau, Historical Statistics of the United States: Colonial times to 1970 and own computations

Graph 6: **Policy stance and GDP growth, U.S. and euro area, 2007-10**



Sources: Federal Reserve, ECB, AMECO

Table 2: **US Federal government fiscal position 1929-1940**

%of GDP

	Expenditure	Total revenue	Income and profit tax	Other revenue	Balance
1929	2.8	3.7	2.2	1.4	0.9
1930	3.4	4.4	2.6	1.7	1.0
1931	5.4	4.2	2.4	1.8	-1.2
1932	8.2	3.4	1.8	1.6	-4.8
1933	8.3	3.7	1.3	2.4	-4.6
1934	9.8	4.7	1.2	3.5	-5.2
1935	8.6	5.2	1.5	3.7	-3.4
1936	9.1	5.0	1.7	3.3	-4.1
1937	9.1	6.1	2.4	3.7	-3.0
1938	8.4	8.1	3.1	5.1	-0.2
1939	10.2	7.2	2.4	4.8	-3.0
1940	9.5	6.9	2.1	4.8	-2.7

Sources: Bureau of Economic Analysis and US Census Bureau, *Historical Statistics of the United States: Colonial times to 1970*

Table 2 provides a breakdown of the federal fiscal balance in expenditure, income and profit tax and other revenue. It shows that the bulk of the fiscal contraction was due to an increase in the ratio of revenue to GDP. There is evidence that part of this is indeed related to discretionary changes. In 1935, the Social Security Act was adopted as part of the Roosevelt administration's New Deal. It provided protection against income loss due to old age or unemployment and the burdens of widows and orphans. Payroll taxes were first collected in 1937, which may explain some of the upward shift in 'other revenue' by almost 2 percentage points of GDP in 1937/38. Income and profit tax revenue also shows an upward shift in 1937, which may be related to the one off 'veterans bonus', granted in 1936 and dropping out of the data in 1937. Veterans of the First World War in the United States had been promised a cash bonus payable in 1945, but veterans lobbied extensively to get full payment immediately. Congress passed several bonus bills that were routinely vetoed by Roosevelt, but finally overcame his veto in 1936, when the Treasury distributed US$1.5 billion in cash to the 4 million veterans. This corresponds to roughly 1½ % of GDP.

Table 3 provides a tentative breakdown of the change in the US fiscal position in 1937-38 into discretionary and induced components based on a simple methodology (see Annex for details). First, the GDP elasticity of revenues or expenditure is estimated for the period 1931-36, along with its trend growth component. Trend growth and the residual together are then labelled 'discretionary' and the part that can be explained by GDP growth and the estimate elasticity is "induced". To capture lags in tax collection and appropriations, the two-years moving average of GDP growth is used (except for federal income and profit tax for which one-year lagged GDP growth is used).[1] The estimated elasticities are 1.9 for federal income and profit tax, 1.6 for total federal revenue (which as of 1937 includes the social security contributions) and 0 for federal expenditure. The results suggest that of the total change in the fiscal balance between 1936 and 1938 of 4 percentage points of GDP, three-quarters is discretionary and one-quarter induced. For revenue the split between discretionary and induced is 2 and 1 percentage points of GDP, respectively, while all of the ¾ percentage-point cut in expenditure would be discretionary.

[1] Since fiscal data is available only on a cash basis, there is likely to be a time lag between the tax base and the recorded receipts.

Table 3: **Change in US Federal government fiscal position, 1936-38**

	1937-38, Breakdown by origin, %of GDP			
	Expenditure	Total revenue	Income and profit tax	Balance
Discretionary	-0.7	2.0	0.5	2.7
Induced	0.0	1.1	0.9	1.1
Total	-0.7	3.1	1.4	3.8

Source: own calculations

It is possible to tentatively compute the impulse responses to the discretionary contraction with the help of multipliers produced by the Commission's DSGE model (see Roeger and In't Veld 2009). The multipliers of government expenditure and revenue would be roughly 1 and ½ respectively. Applying these multipliers to the computed fiscal impulses suggests that the impact of fiscal policy in 1937/38 may have been a contraction of GDP of 2%. However, real GDP decelerated from 13% in 1936 to 5¾ % in 1937 and -4½ % in 1938 – a swing of over 17%. So, while fiscal policy goes some way in explaining the extent of the 1937/38 recession, it leaves the bulk unexplained.

Alternative explanations of the recession

While the 1937/38 recession is generally attributed to a tight stance of macroeconomic policy, this view is thus questionable. Indeed, observers at the time, while acknowledging the tighter stance of macroeconomic policies, emphasised the role of other factors such as commodity speculation and geopolitical tensions associated with the Spanish Civil War (Slichter 1938).

Among modern commentators, Cole and Ohanian (2004) propose a different explanation, based on simulations with a dynamic general equilibrium model calibrated on the US economy in the 1930s. They attribute the recession to a large change in labour policies that substantially increased unionisation rates and that led to a large increase in industrial real wages. The Roosevelt Administration's New Deal policies were aimed to limit competition in labour and product markets so us to give workers and companies more pricing power. In 1935 the Administration suspended the Antitrust laws and granted a "closed shop" to unions (meaning that only union members were allowed to be employed). The former was found unconstitutional, but the closed shop was left and real wages soared amid an increase in industrial conflicts (despite still high unemployment). This led to a decline in profits and employment and would have produced the 1937/38 recession. According to this view macroeconomic policies would have played only a minor role.

Higgs (1997) offers yet another explanation, arguing that Roosevelt's New Deal policies were seen by many investors as a 'regime change' that gave rise to uncertainty over the property rights in their capital and its prospective returns. This uncertainty arose especially from the Roosevelt's Second New Deal from 1935 to 1940. It would explain the sharp declines in investment that were the hallmark of the 1937/38 recession.

Some lessons

So, is the 1937/38 recession relevant in the current episode? Surely the warning should be taken at heart that a premature exit from policy stimulus can be damaging. But it may be misleading to use the 1937/38 recession as a warning against premature exit from policy stimulus at this juncture. Macroeconomic policy probably did play a role, but the main culprit of the long duration of the Great Depression was not an alleged 'early exit' but rather a 'late and timid entry', which was then prematurely interrupted in 1937/38. Fortunately, the mistake of a late and timid macroeconomic policy response has not been repeated this time around. And a premature fiscal exit is ruled out by the current framework as agreed by the European Council in October 2009, as it makes the exit contingent on the economic situation and forecast. Moreover, the fiscal exit is the 1937/38 recession was over 2% of GDP, and such a sharp cutback is not envisaged in the current framework. At any rate, the 1937/38 recession most likely cannot be attributed solely to an exit from policy stimulus. A major adverse 'supply shock' produced by Roosevelt's New Deal must be factored in as well.

Finally, does one really need the 1937-38 example to reach the conclusion that premature exits can be damaging? The situation in 2010/11 and beyond must be assessed on its own merits. Concerns that a policy exit would kill the recovery are to be taken seriously, but provided it is carefully designed and well communicated policy exit may not be damaging. In fact, a well-orchestrated fiscal exit may help to relieve market concerns over fiscal sustainability and secure low interest rates at longer maturities, which

should support the recovery and facilitate the monetary exit. It should be recalled that public debt as a share of GDP in the United States never breached the 60% threshold during the Great Depression, whereas this was the jumping-off point in the Great Recession in Europe. But perhaps the most important lesson to be drawn from the 1937/38 downturn in the United States is that anti-competition policies can cause or exacerbate a relapse into recession. Therefore, no-regret structural policies should take precedence over macroeconomic policy stimulus as soon as feasible.

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Annex: Determining the discretionary component of fiscal policy in 1937/38

The analysis proceeds in two steps. In a first step a tax (expenditure) equations are estimated on 1931-1936 data. They have the following specification:

$$\frac{\Delta T}{T_{-1}} = c + \varepsilon G(L)\frac{\Delta Y}{Y_{-1}} + \mu$$

T is tax revenue, Y is nominal GDP, c is a constant term, $G(L)$ is a distributed lag operator, μ is a disturbance and c is a deterministic trend. The specification for expenditure is the same. The results are depicted in Graphs A1 to A3. The GDP elasticities are estimated to be 1.95 for federal income and profit tax, 1.56 for total federal receipts and 0 for federal expenditure.

The next step is to use this equation to compute a breakdown of the revenue or expenditure change (in percentage-points of GDP) in a discretionary and an induced component, using the following identity:

$$\Delta\frac{T}{Y} = \frac{T_{-1}}{Y_{-1}}\left[\left(\frac{\Delta T}{T_{-1}}+1\right)\frac{Y_{-1}}{Y}-1\right] =$$

$$\frac{T_{-1}}{Y_{-1}}\left[\varepsilon G(L)\frac{\Delta Y}{Y_{-1}}\right] + \frac{T_{-1}}{Y_{-1}}\left[(c+\mu+1)\frac{Y_{-1}}{Y}-1\right]$$

In this identity the first right-hand side term is the induced component and the second term is the discretionary component. The result of this decomposition is shown in Tables A1 and A2 (the decomposition fro expenditure is not shown because all of it is found discretionary).

Table A1: **US Federal income and profit tax: Induced and discretionary components**

percentage-point changes of GDP

	Induced	Discretionary	Total
1931	-0.6	0.4	-0.2
1932	-0.8	0.1	-0.6
1933	-0.8	0.3	-0.5
1934	-0.1	0.0	-0.1
1935	0.4	-0.2	0.3
1936	0.3	-0.1	0.2
1937	0.5	0.2	0.7
1938	0.4	0.3	0.7
1939	-0.4	-0.3	-0.7
1940	0.3	-0.6	-0.3

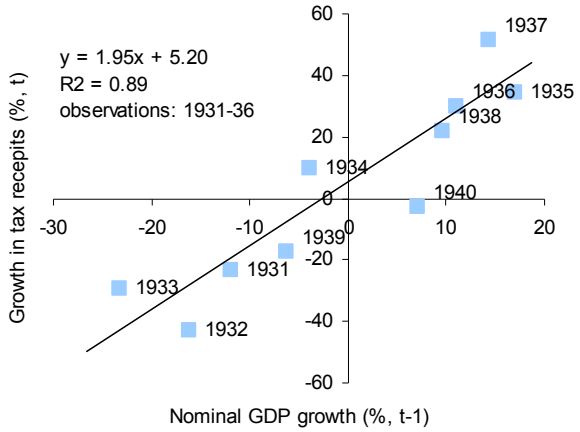
Source: Burea of Economic Analysis, own computations

Table A2: **US Federal total revenue: Induced and discretionary components**

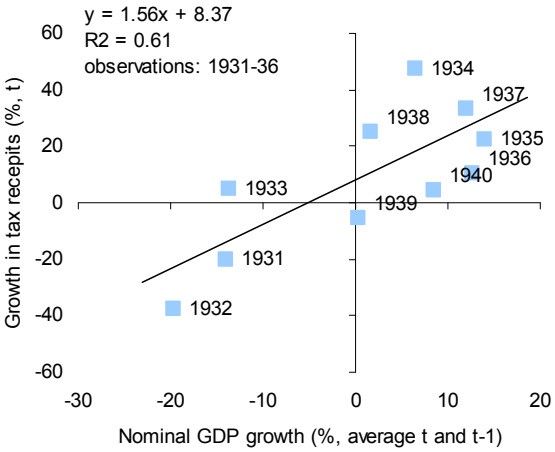
percentage-point changes of GDP			
	Induced	**Discretionary**	**Total**
1931	-1.0	0.8	-0.2
1932	-1.3	0.5	-0.8
1933	-0.7	1.0	0.3
1934	0.4	0.6	1.0
1935	1.0	-0.5	0.5
1936	1.0	-1.2	-0.2
1937	0.9	0.1	1.1
1938	0.2	1.9	2.0
1939	0.0	-1.0	-1.0
1940	1.0	-1.3	-0.4

Source: Burea of Economic Analysis, own computations

Graph A1: **Growth in nominal GDP and federal income tax receipts**



Graph A2: **Growth in nominal GDP and total federal tax receipts**



Graph A3: **Growth in nominal GDP and total federal expenditure**