Document de travail du LEM / Discussion paper LEM 2017- 17

Misplaced Childhood: When Depression Babies Grow Up As Central Bankers

Etienne FARVAQUE
LEM UMR 9221 / etienne.farvaque@univ-lille1.fr

Franck MALAN
EDEHN - Université du Havre and LEM / franck.malan@etu.univ-lehavre.fr

Piotr STANEK
Cracow University of Economics / stanekp@uek.krakow.pl

http://lem.cnrs.fr/IMG/pdf/dp2017-17.pdf

http://lem.cnrs.fr/

Misplaced Childhood: When Depression Babies Grow Up As Central Bankers

Etienne Farvaque* Franck Malan† Piotr Stanek‡§

This version: *September 2017*

Abstract

We examine how much an early – i.e., childhood – experience of recession influences the behavior of central bankers. We first develop a model of decision by a committee whose leader exhibits recession-aversion due to her personal experience and, second, analyze the determinants of the interest rate setting by central banks in a discrete-choice modeling framework, augmented by the chairperson's experience characteristics. The model reveals that recession aversion could lead to a reluctance of the policymaker to increase policy rates (in empirical terms, the more recession averse will be the policy-maker, the higher should the proportion of "cuts" be, relatively to "hikes"). In a panel multinomial logit model for nine major central banks analyzed over the period 1999-2015, we verify that growing-up in a recession indeed matters. Central bankers' early personal experiences of recessions thus shape the policy reactions at the head of their institutions, with policy-relevant magnitudes. The results are robust to the tests of alternative behavioral hypotheses.

Keywords: Central banking, Committees, Recession Aversion, Discrete Choice Modeling, Behavioral Economics.

JEL Classification: E58, D03, D78, E31, E52.

*LEM - CNRS - Universités de Lille, Faculté des Sciences Economiques et Sociales, Bâtiment SH2, 59655 Villeneuve d'Ascq Cedex, France and CIRANO, Québec, Canada. Contact: etienne.farvaque@univ-lille1.fr

†EDEHN - Université du Havre and LEM - CNRS - Universités de Lille, Faculté des Sciences Economiques et Sociales, Bâtiment SH2, 59655 Villeneuve d'Ascq Cedex, France. Contact: franck.malan@etu.univ-lehavre.fr

‡Cracow University of Economics, Faculty of Economics and International Relations, ul. Rakowicka 27, 31-510 Krakow, Poland; stanekp@uek.krakow.pl

§The authors would like to thank Masato Abe, Olivier Beaumais, Hamza Bennani, Ivo Bischoff, Christophe Boucher, Elena-Ivona Dumitrescu, Petra Geraats, Florence Huart, Paul Hubert, Corrado Macchiarelli, Maxime Menuet, Pierre-Guillaume Méon, Clément Nedoncelle, Antoine Parent, Christian Rietsch, Davide Romelli, Masahiko Shibamoto, Patrick Villieu, Laurent Weill and Agata Wierzbowska for useful comments, as well as participants in the EPCS 2016 (Freiburg), ICABE 2016 (Paris), International Symposium on Money, Banking and Finance (Clermont-Ferrand, 2016), 10th joint Inha-Le Havre conference (Seoul, 2016), and RIEB seminar (Kobé University, 2016). The usual disclaimer applies.

1 Introduction

What could influence individual central bankers decisions? Where do their preferences come from? Are they innate, directly inherited, or acquired by some more oblique transmission channels? If a good part of our preferences can be shaped by the individual internalization of cultural norms and values, the intra-family transmission, the influence of one's experiences through early life, is it also the case for central bankers?

Pixley (2004) said: "A former Bank of England informant said: You learn from the past. There is something else. Knowledge is made up of training and experience. For example, I often used to divide the members of the Monetary Policy Committee over whether they had been involved in some of the great policy disasters of the United Kingdom. If you had been involved in those policy disasters you had a very different take on life. (12 March 2002)".

It has been shown that personal experiences also matter, especially in the early life. Dohmen et al. (2011), for instance, show a large influence of parental attitudes towards risk-taking on children's own behavior. As Emmenegger et al. (2017) explain, early-life experiments can "scar" people, and young-age unemployment spells can have a lasting impact on future political interest. Closer to the point we make in this article, Malmendier and Nagel (2011) show that the individuals who have experienced low stock market returns throughout their lives report lower willingness to take financial risk, and are more pessimistic about future stock returns. Those "depression babies", as Malmendier and Nagel (2011) have called them, have different risk-taking attitudes, and this is confirmed by Giuliano and Spilimbergo (2013), who show that those who experienced a recession when young believe that success in life depends more on luck than effort, support more government redistribution, and tend to vote for left-wing parties. But what happens when depression babies grow-up as policy-makers? Do they also suffer from such scars, and do they grow more risk-averse, and more recession-averse in particular? So far, the literature has not dealt with this question.[1] Therefore, in this article, we focus on central

[1] Although one can sometimes find some hints or anecdotes that can be revealing. For instance, an academic exception is Malmendier et al. (2017), who consider that subjective beliefs and preferences of the Fed's FOMC members are formed using the lifetime inflation experiences each member has known. In other words, they consider that, when forming theirs beliefs about future inflation, individuals overweight realizations of (experienced) past (i.e., lifetime) inflation. They thus use the same definition of inflation aversion as in Malmendier and Nagel (2016), where they consider not only policymakers of the American central bank, but a large panel of citizens surveyed through the Reuters/Michigan Survey of Consumers. However, they do not explore the reasons that can explain the behavior they study. They show the lifetime experiences of FOMC members significantly affect their tendency to cast dissenting votes and, as a more subtle expression of their policy leanings, the hawkish or dovish tone in their speeches. Although Malmendier and Nagel (2016) and Malmendier et al. (2017) analyses can be considered as close to the present study, they focus on one country, and look at inflation aversion, while we consider recession aversion.

bankers and intend to analyze if the "depression baby effect" is also effective when agents are at the helm of a central bank. In other words, we aim at verifying if central bankers who have been through recession(s) in their early life[2] develop a greater recession-averse behavior than their counterparts.

The common sense intuition that leadership matters is supported more and more. For instance, Besley et al. (2011) or Hayo and Neumeier (2012) analyses confirm that leaders' background matters in macroeconomic developments. This line of thoughts applies to central bankers as well, and it has been shown that the votes of the Federal Reserve's Federal Open Market Committee (FOMC) members are significantly affected by their educational and professional achievements (Chappell et al., 2005; Eichler and Lahner, 2013). Results from larger samples indicate that central bankers' occupational background, as well as their education, can be an important determinant to consider (Farvaque et al., 2014; Gohlmann and Vaubel, 2007; Lebaron and Dogan, 2016; Farvaque et al., 2011). This shows that leadership matters in central banking. However, the literature so far has not considered the issue raised by Malmendier and Nagel (2011), and this is the aim of this study. More precisely, if the "depression childhood effect" implies a lower degree of risk-taking, it could induce a reluctance to increase policy rates and a bias towards the reduction of policy rates. Hence, we test the "depression childhood effect" in a discrete-choice modeling, which is more adapted to capture the effect, if it is present insofar as this modeling takes into consideration the nature of the policy rate (what really interests us) instead of the extent of this policy.

The study by Eichengreen et al. (1985) is one of the first to use discrete-choice modeling in a related context, taking into account the nature of the policy rate when studying the Bank of England's discount rate policy in the interwar gold standard period. For more recent periods, Dueker (1999) considers the FOMC (Federal Open Market Committee) decisions, and measures the policy rate inertia, while Hamilton and Jorda (2002) focus on the size of rate changes for the same central bank. Hu and Phillips (2004) also study the FOMC and, after controlling for non-stationarity, show that reactions to economic shocks by the FOMC are delayed (i.e., the Fed does not react immediately to a shock, but with a one-period lag). The latest studies additionally attempt to control for novel variables such as time-varying risk premium (Nourzad et al., 2012), utilize combination of forecasts (Vasnev et al., 2011) and (Bayesian) model averaging (Hauwe et al., 2013) for the Fed decisions.

Among the studies that have used discrete choice modeling of monetary policy decisions for

[2]The first 25 years in the case of this study.

other (individual) central banks, Gerlach (2007) focused on the European Central Bank, Smales (2013) on the Reserve Bank of Australia, Torres and Shepherd (2013) on the Bank of Mexico, whereas Kim et al. (2015) analyzed South Korea. In a multi-country setting, Dolado et al. (2005) considered four central banks' decisions, whereas Nojkovic and Petrovic (2015) investigated six Central and Eastern European monetary authorities. Thus, interest rate setting analysis under discrete choice framework does not only better reflect the reality of monetary decisions, but also allows to assign probabilities to moves of the policy rates in different directions. This, in turn, means considering explicitly behavioral asymmetries that can be important if central bankers are "recession-averse" (Cukierman and Muscatelli, 2008), as they could be if the "depression baby effect" is present.

Here, we adopt a multinomial logit modelling of determinants of policy changes, with an emphasis on the leadership effects and, in particular, on the impact of the recession(s) experienced in the first 25 years on the policy behavior of central banks chairmen.[3] Our main contribution is thus to take into account the influence of central bankers' chairmen different backgrounds on monetary policy decisions.

This aims at focusing on the role that chairmen have played in the normal times, as well as during the financial crisis of 2008. Generally, a strong leadership has to be built in normal times, so as to allow enforcing otherwise hard-to-take decisions when circumstances need it (see, Bligh and Hess, 2007; Axilrod, 2009; El-Shagi and Jung, 2015, for different types of account revealing the importance of the Fed's chairmen, for example). Among diverse characteristics of the chairmen, we thus take into account early life experience of recession, as this might have important consequences for individual preferences. A second contribution is that we make use of discrete choice models, where the effects of backgrounds can be revealed in a more precise way, and notably by taking into account asymmetries in deciders' reaction functions.

It has to be signaled, that, even though our period covers the most recent years, we nevertheless focus on interest rate changes for three related reasons. First, less than half of the central banks in our sample have used quantitative easing measures, meaning that interest rate changes are a central policy tool for a large part of decision-makers, and offering a way of comparing decision-makers' attitudes. Second, even in a world where central bankers have had to rely on quantitative measures, these were implemented as complementary instruments,

[3] Volens nolens, we have to accept that our sample only contains male monetary policy-makers. The committees they chair sometimes do contain women and, by way of consequence, if there is a gender effect in central banking (see Farvaque et al., 2014, 2011), it cannot be observed here (or, it would be a purely "Yellen effect"). All in all, this reflects the bias against women in central banking (Chartély et al., 2017).

and with an understanding that interest rate changes are the main tool of monetary policy, even though temporarily ineffective. Moreover, central bankers implementing quantitative easing have had to give some guidance about their (future) behavior. Third, our modeling strategy is precisely aimed at taking into account the fact that most of central bankers' decisions are, in fact, no-change decisions. This is even truer when policy rates hit the zero lower bound (ZLB), justifying our empirical approach.

Results from our multinomial logit estimates reveal that, if the standard determinants (inflation, the inflation gap for inflation targeting central banks, the output gap) have an influence, leadership effects, and central bankers' backgrounds also have an impact on interest rate changes. There is a depression baby effect for central bankers, and we reveal that its size is significant. In other words, growing-up in a recession influences central bankers as much as other agents. Moreover, the results resist to several alternative, or placebo, hypotheses that could be emitted but are not supported by the data.

The remainder of the article is thus organized as follows: Section 2 introduces the theoretical model. Section 3 describes the data and methodology we use, while Section 4 presents the results. Section 5 contains our conclusions and suggestions for further research.

2 Theory

We first review the origins of the behavioral trait we look at. We then detail the benchmark standard model of monetary policy, include a recession aversion policymaker, and finally analyze to what extent this could impact the monetary policy committee decisions.

2.1 Where does recession aversion come from?

One can conceive two ways of explaining an individual's preferences. They can either be received (i.e., transmitted by parents or other role-models), or they can be built, and they can evolve, through personal experience. Obviously, the distinction between the two mechanisms is more pedagogical than realistic, and the reality is generally an idiosyncratic combination of the two, but the distinction has given birth to two related literatures, each focused on one aspect.

The transmission of preferences has been explored in many contexts, and the literature generally differentiates between a first channel, called "vertical", that captures the transmission of beliefs within the family, and a second, termed "oblique", that seizes influence(s) arising outside the family (see, e.g., the survey by Bisin and Verdier, 2010). In this case, whatever the

channel, preferences are inherited, and it is the experience(s) of parents and role models that will matter.

Here, we focus on recession aversion, considering that it emerges during the forming years, i.e., the first 25 years an individual (in our case, a central banker) has lived through. We thus rely on the second literature, the one that looks at the building of preferences through personal experiences, and that shows the defining impact the first years of an individual have on her behaviour. The fact is now empirically backed (see, e.g., Giuliano and Spilimbergo, 2013) and its general macroeconomic consequences have been explored, by, for example, Alesina and Fuchs-Schuendeln (2007). For what concerns the influence on each and every agent's behavior, the study by, for instance, Cogley and Sargent (2008) - making use Friedman and Schwartz (1963) account of the way successive recession shape individuals' assessment - shows how depressions and recessions can alter confidence in a 'normal' set of beliefs, rendering agents more pessimistic, with induced consequences on their utility function. Huang et al. (2016) show that such preferences can define "cohort preferences", with particularly strong impact on asset pricing cycles.

From this literature, we conclude that recession aversion comes from a personal experience of a situation that induces a form of risk aversion. In other words, experience brings prudence (Kimball, 1990), a form of higher-order risk attitude (Noussair et al., 2014). Technically, recession aversion is thus a kind of downside risk aversion (Crainich and Eeckhoudt, 2008). As such, it can be modelled and inserted in an otherwise standard macroeconomic model, in which the policymaker's utility function exhibits loss aversion. This has notably been shown by Cukierman and Muscatelli (2008), and done by Gerlach (2003) or Geraats (2006). In what follows, we will make use of the functional form proposed by Surico (2008).

2.2 The Economy and the Central Banker's Benchmark Loss Function

We adapt the model proposed by Gerlach (2003) or Surico (2008). The economy is summarized by the following Phillips curve and rational expectation process, respectively:

$$y_t = \theta\left(\pi_t - \pi_t^e\right) + u_t, \tag{1}$$

$$\pi_t^e = E_{t-1}\pi_t, \tag{2}$$

where π_t denotes the inflation rate at time t, π_t^e the expected inflation rate at time t, E the expectations operator, y_t the output gap at time t, θ a positive parameter, and u is an i.i.d.

shock.

We add to this model a traditional IS-type curve, representative of the demand side of the economy:

$$y_t^d = \phi\left(i_t - \pi_t\right) + v_t, \tag{3}$$

where i_t is the nominal interest rate and v_t is an i.i.d. demand shock.

The central banker's loss function in the benchmark case is a standard text-book one:[4]

$$L_t = \frac{1}{2}\left[\left(\pi_t - \pi^*\right)^2 + \lambda y_t^2\right] \tag{4}$$

where λ is the relative weight given by the central banker to the stabilization of output objective, and π^* denotes the target inflation rate.

Standard optimization of this loss function in the discretionary case and under the constraints imposed by the economy's behavior deliver the following values for inflation, output, and the interest rate:

$$\pi_t = \pi^* - \left(\frac{\theta\lambda}{1+\theta^2\lambda}\right)u_t$$

$$y_t = \left(\frac{1}{1+\theta^2\lambda}\right)u_t$$

$$i_t = \pi^* - \frac{1}{\phi}v_t + \frac{1-\phi\theta\lambda}{\phi\left(1+\theta^2\lambda\right)}u_t$$

The expected value of the social loss function in this standard case is thus the following:

$$\tilde{L_t} \equiv E\left(L_t\right) = \frac{1}{2}\left[\pi^{*2} + \sigma_u^2\left(\frac{\lambda}{1+\theta^2\lambda}\right)\right]$$

where a tilde indicates a computed value and σ_u^2 is the variance of the shock.

[4] See, e.g., Walsh (2010).

2.3 The Recession-Averse-Central Banker's Loss Function

We still focus on a discretionary regime and, following Surico (2008), we suppose that the central banker attempts to minimize an instantaneous loss function of the following form:

$$L_t^A = \frac{1}{2}\left[(\pi_t - \pi^*)^2 + \lambda\left(\frac{exp(\gamma y_t) - \gamma y_t - 1}{\gamma^2}\right)\right], \tag{5}$$

where $\gamma < 0$ represents the asymmetric preference on output stabilization, reflecting the recession-averse preference of the policy-maker, and where A indicates the recession-averse case. We do not explicitly model the origin of this recession-aversion. However, based on the literature reviewed above, the parameter is a function of the policymaker's past experience, which itself comes - theoretically speaking - as an endowment (Kimball, 1990; Crainich and Eeckhoudt, 2008). Hence, we have $\gamma \equiv \gamma(\bar{\omega})$, where $\bar{\omega}$ summarizes the experience of the policymaker, and notably the recessions through which she has lived.

The minimization of (5) yields a solution of the form:

$$(\pi_t - \pi^*) + E_{t-1}\left(\frac{\lambda\theta}{\gamma}[exp(\gamma y_t) - 1]\right) = 0,$$

which can be approximated by:

$$E_{t-1}(\pi_t) \simeq \pi^* - \frac{\lambda\theta\gamma}{2}\sigma_y^2.$$

where σ_y^2 is the variance of the output gap.

The interest rate decision rule followed by the central banker is now:

$$i_t^A = \pi^* - \frac{1}{\phi}(v_t - u_t) + \theta\lambda\gamma\left(\frac{\phi + \theta}{2\phi}\right)\sigma_y^2.$$

Given this, the value of the one-period loss function, $\tilde{L}_t$ becomes:

$$\tilde{L}_t^A = \frac{1}{2}\left(\frac{\lambda\theta\gamma}{2}\sigma_y^2\right)^2 + \frac{\lambda\gamma^2}{2}\sigma_y^2.$$

2.4 The committee decision

We do not ignore that central banking is a collective activity nowadays (and this is true for the central banks that our empirics will cover).[5] However, our focus is not on modeling the behavior of the monetary-policy-making committee, but analyzing the influence of the childhood experience on the Chairman's behavior. We thus summarize the bargaining process inside the monetary policy committee as delivering the following decision-making rule:

[5] See Hao and Suen (2009).

$$i_t^C = \alpha i_t + (1-\alpha)\, i_t^A$$

where $(1-\alpha)$ is the relative power of the recession-averse policy-maker inside the committee and the subscript C denotes the committee decision. This can either reflect a Chairman dominance effect (as coined by Riboni and Ruge-Murcia, 2010) or the issue of the bargaining inside the committee (as in Hayo and Meon, 2013), or of the voting rule process (as in Farvaque et al., 2009, for instance).

Substituting with the above results, we obtain a decision rule of the following type:

$$i_t^C = \pi^* - \frac{1}{\phi} v_t + \left[\alpha \left(\frac{1-\phi\theta\lambda}{\phi\,(1+\theta^2\lambda)} \right) + (1-\alpha)\frac{1}{\phi} \right] u_t - (1-\alpha)\,\theta\lambda\gamma \left(\frac{\phi+\theta}{2\phi} \right) \sigma_y^2, \quad (6)$$

which defines the way the interest rate will evolve in reaction to economic and (potentially) preference shocks.

From this expression, we can derive the following comparative statics results:

$$\frac{\partial i_t^C}{\partial\,(1-\alpha)} = \left(\frac{\theta\lambda\,(\phi+\theta)}{\phi\,(1+\theta^2\lambda)} \right) u_t - \theta\lambda\gamma \left(\frac{\phi+\theta}{2\phi} \right) \sigma_y^2, \quad (7)$$

$$\frac{\partial i_t^C}{\partial \gamma} = -\,(1-\alpha)\,\theta\lambda \left(\frac{\phi+\theta}{2\phi} \right) \sigma_y^2, \quad (8)$$

$$\frac{\partial^2 i_t^C}{\partial\,(1-\alpha)\,\partial\gamma} = -\theta\lambda \left(\frac{\phi+\theta}{2\phi} \right) \sigma_y^2. \quad (9)$$

Given that $\gamma < 0$, the sign of the first derivative is positive, while the sign of the last two is negative. Hence, the relative power of the recession averse decision-maker in the committee decision (i.e., $(1-\alpha)$) has a positive impact on the interest rate rule followed by the committee. This result is reminiscent of the one obtained, e.g., by Riboni and Ruge-Murcia (2010) under dominance, and signals that chairmen can use an agenda-setting position to increase their relative power and move interest rates further than what the median member of the committee would choose. However, the recession aversion parameter has a negative impact on the interest rate. As revealed by the last equation, the cross derivative with regard to both the recession aversion and the Chairman's relative power do weigh negatively on the policy rate. In other words, the recession-aversion parameter has an even stronger influence on policy rates than the relative power of the Chairman. As a consequence, the more recession-averse the policy-maker,

and the larger his influence in the committee, the smaller the interest rate, ceteris paribus.
This stylized model thus reveals that recession aversion could lead to a reluctance from the Chairman to increase interest rates. In empirical terms, the more recession averse will be the policy-maker, the larger the impact of his recession aversion experience on the proportion of "cuts" on interest rates, relatively to the proportion of "hikes". Or, the larger the impact of the experience of recessions on a policy-maker, the more reluctant she should be to behave hawkishly. We now investigate if this theoretical result is supported by the data.

3 Empirics

In this section, we empirically test the "depression childhood" hypothesis for 9 central banks. Here, our assumption is that the "Depression Baby" effect revealed by Malmendier and Nagel (2011) is also relevant for policymakers, and that we could write $\gamma \equiv \gamma(\bar{\omega})$, where $\bar{\omega}$ is the childhood experience (i.e., the number of years of recession a central banker has lived through during his first 25 years in the case of this study). We consider the standard determinants of a policy change, to which we add several variables related to the Chairman's background, and more particularly its childhood experience of economic depression periods.

3.1 Data

Our dependent variable is the decision taken by central bankers, i.e., the (change of the) policy rate. However, central banks interest rate decisions raise an economic issue with econometric consequences, because central banks do not necessarily adjust their rate and, when they do so, they change it through small steps (generally 25-basis points, sometimes, but more rarely, 50-basis points). Table 1 offers another way to look at the data, revealing that, on average for the 9 central banks we survey over the period 1999Q1 – 2015Q4, policy rates were not modified more than half of the time (58.5%). If Japan is a clear outlier, as policy rates were not changed more than 90% of the time (92.65% to be precise), even in Sweden 38.24% of the observations are of a no-change decision. The second part of the Table 1 also shows that the crisis has only reinforced (and not dramatically altered), this feature. Only in Sweden has the proportion of "no-change" decisions been reduced, whereas it has increased in all the other countries surveyed in our sample. Such an inspection of the data therefore convinces that a discrete choice modeling is an adequate approach to explain its variations (or lack of it), if one wants to take into account the features of the whole period. Moreover, given that the

theoretical modeling suggests that recession-aversion should impact policy rates, this is also more consistent.

We will consider two groups of independent variables. First, we consider macroeconomic variables: the GDP growth rate and the inflation rate. These two variables are commonly used (for example, in Taylor-like rules' estimates) and do not necessarily attract further comments.[6] We also account for the impact of the Great Recession (aka, the Great Financial Crisis) by adding a dummy variable taking the value 1 if a country has known a negative rate of its (quarterly) GDP growth between 2008 and 2009. Finally, we include a dummy equal to 1 if the central bank has an official inflation target, and a dummy equal to 1 when the target is met, to take into account the framework in which the decisions are taken and the potential influence of missed targets on these decisions. These last two variables are obviously related and will only be introduced successively. These macroeconomic variables will deliver our baseline estimates.

The second group of variables we consider are the ones that should reflect the "depression childhood effect". In the spirit of Malmendier and Nagel (2011), to capture how their individual experiences of macroeconomic shocks affect the central bankers' degree of risk aversion, we include variables capturing the context in which the chairpersons included in our sample grew up. First, we include the number of continuous (i.e., successive) years of recession a Chairman has known during his first 25 years. To confirm that this risk aversion that we are trying to capture in this article is not the effect of only one or two Chairmen, Table 2 shows an average turnover of 3 in central banks. As can be seen from Table 3, this variable has a mean equal to 4.65, and a maximum value of 11 years (Alan Greenspan, Chairman of the Federal Reserve of United State over the period 1999-2005). Hence, we also consider a dummy variable, whose value is 1 if the number of continuous recession years of the Chairman is superior to 4 (4 years and 8 months being on average the number of continuous recession years). In our sample, more than one-third of the chairmen considered have lived through such periods (see Table 3), which may have even more strongly influenced their behavior than for the other central bankers. Then, we take into account the maximum number of successive recession years known by a central banker. This captures the maximum length of any recession the central banker has lived through (this variable has a mean equal to 1.85 and a maximum value equal to 5). Another

[6]Note that we have run robustness checks introducing also the real exchange rate. Given that some of the countries considered here are among the main exporters and importers, this variable could in particular capture the impact of trade relations. In addition Dong (2013) shows that the Bank of Canada, the Reserve Bank of New Zealand, and the Bank of England do not adjust interest rates in response to exchange rate movements since the adoption of inflation targeting. However, even using exchange rates in modelings, the results are qualitatively similar.

variable that could induce recession-aversion is the minimum value of the GDP growth rate that the central banker has experienced. This is intended to capture the depth of the recessions the central banker experienced during his formative years. The mean here is equal to -9.77, a relatively low value which reflects that the central bankers we survey have gone through very deep recessions, and thus reinforces the possibility that such dramatic periods may have impacted their preferences. Finally, we include a dummy variable equal to 1 if a central banker is born before World War II, to check if our results could be driven by a generational effect. Thus, approximately 20% of Chairmen are born before World War II.

Concerning the Chairman, we control for the relevant career effects. More than half of the chairmen we consider come from either the Academia (11% of the sample) or the Central bank itself (42%), see Table 3. These professional backgrounds are taken into account through two dummy variables (equal to 1 if the feature is met, 0 otherwise). In the literature, these variables have been shown to be significant in explaining the decision taken by central banks, (see, e.g., Chappell et al., 2005), therefore we also include them in our specifications.

Finally, we include two control variables that are now currently used in the literature on decision-making by committees. These aim, both, at controlling for the sheer fact that the chairperson is not alone in taking decision, even if her agenda-setting power means that a "dominance" is probably present, especially in monetary policy committees (see for example, Riboni and Ruge-Murcia, 2010; or Johnson et al., 2012), and for the dynamics that can take place inside the committee. First, we include the Chairman age gap (i.e., the difference between the age of the Chairperson and the average age of the committee excluding himself), to include for generational, educational and, potentially, behavioral differences between the leader and its committee. A relatively similar variable (gap between the age of the oldest and the youngest committee member) has been shown as influential in the literature on committees and, for monetary policy, in Farvaque et al. (2014). Second, the professional heterogeneity of the members of the committee is included, to control for the variety of opinions a Chairman can benefit from. That is, it accounts for the "two heads are better than one" effect (see Blinder and Morgan, 2005). The high variance related to this variable (see Table 3) could reveal important tensions inside a board, according to the literature on board management. More precisely, we measure heterogeneity of the committee by Herfindahl indices (hence, the closer to 1 is its value, the more homogeneous is the group). As can be seen from Table 3, there is a comparatively large degree of heterogeneity for this variable in our sample, with a mean equal to 0.36.

3.2 Methodology

The specification we use for the central banks' policy rate decisions considers the target interest rate, i^*, for the central banker as a latent variable, chosen to maximize the decider's utility, and whose determinants are X, a vector of macroeconomic variables, W, which refers to each central bank's Chairman characteristics, and Z, which contains control variables for the features of the committee headed by the Chairman heads. Hence, we have:

$$i_t^* = \alpha + \beta X_t + \gamma W_t + \lambda Z_t + \varepsilon_t \tag{10}$$

where ε_t is an i.i.d. error term.

The determinants of the changes in the target rate decision are considered using a triple-choice specification for the discrete choice (multinomial logit) model :

$$y_i = 0 \; if \; i_t^* = i_t$$
$$y_i = 1 \; if \; i_t^* < i_t$$
$$y_i = 2 \; if \; i_t^* > i_t$$

Put another way, our dependent variable is $y_t = [0, 1, 2]$ (0 denoting status quo, 1 a cut, and 2 a hike in interest rates).

The determinants of the direction of changes in the central banks policy rate decisions are considered using a triple-choice specification for the discrete choice model. We thus estimate equation (10) above in a multinomial logit model. The multinomial logit model provides a convenient form for the modeling of choice probabilities without requirement for multivariate integration.[7] Therefore, choice situations characterized by many alternatives can be treated in a convenient manner (see Hausman and McFadden, 1984).

[7] A multinomial logit model with fixed effects Central Bank was considered to take into account the fact that the individual background of Chairmen that we are trying to capture is not related to their country's experiences. We finally give up the modeling with fixed effects because of the high level of colinearity between the Central Bank fixed effects and one of the independent variables, namely "inflation targeting dummy". However, the results with fixed effects are qualitatively similar and can be provided on request.

4 Results

4.1 Recession-aversion impact

Table 4 reports the results of the baseline models, while Table 5 shows the marginal effects of the baseline models. Tables 6 and 7 provide the results of successive robustness checks.

First, Table 4, model 1, displays the results of the baseline model, which includes only the macroeconomic variables. GDP growth is, as could be expected, positively associated with the probability of a hike of the policy rate and negatively with a cut in the policy rate (although the coefficient here is only slightly significant). Additionally, an increase in inflation is associated with a higher probability of an increase in the policy rate (although not correlated with the probability of decreasing the rate). The coefficient of the dummy variable associated with the Great Recession period is not significant. Finally, the results associated with the dummies inflation targeting regime (model 1) and inflation target respected (model 2) are interesting. The first is positively related to a reduction in policy rates, while the second is positively related to hikes. Hence, the theoretical properties of an inflation target are confirmed by the data (see, for example, Walsh, 2010): first, the adoption of inflation targeting leads to lower inflation, which allows a reduction in interest rates and, second, once the inflation target is respected, expectations are anchored, which facilitates policy rate changes. Therefore, our baseline models lie in conformity with the generally accepted explanations of policy rates changes. In other words, this first set of results is compatible with a representation of central banks reacting according to a Taylor-rule (or, in this framework, a variation of the Taylor-rule, see, e.g., Smales, 2013; Torres and Shepherd, 2013), which allows us to follow up by focusing on our variables of interest, i.e., the variables capturing the childhood experience of the chairmen.

The next models in Table 4 add, successively, our recession variables. Most of them cannot be included at the same time, for colinearity reasons, so we have to deal with them one by one. As can be seen from models 3 to 6, they are all significant, although with differing degrees of significance, but the general lesson that emerges is that they clearly influence, positively, the probability of cutting interest rates (almost without impacting the probability of augmenting them). These results are thus supporting the theoretical model, which shows a reluctance to increase interest rates (and, thus, a "taste for cuts"). More precisely, it appears that, respectively, the variable denoting if a central banker has lived through more than four continuous recession years, and the variable number of maximum successive recession's years, are the most influential, with high degrees of significance and relatively large coefficients. Model 6 shows a

positive and slightly significance of the lowest rate of GDP growth on the likelihood of central bankers to cut the interest rate. In model 7, we look at the impact of both the maximum number of successive recession years and the lowest rate of GDP growth a central banker has known. Both variables are strongly significant, weighting quite heavily on the probability of reducing interest rates.

Given the impact of WWII on the GDP of many countries which have suffered from destruction, we test, in model 8, if central bankers born before this period are susceptible to have a higher degree of recession aversion, and thus to show a reluctance to increase interest rates. As model 8 shows, this expectation is verified. However, this same variable could imply that what we consider as recession aversion could only be a generational effect. Hence, in model 9, we introduce our favorite indicator of recession aversion (the maximum number of successive recession years) and the birth cohort variable. The latter is now no longer significant, which we interpret as revealing that recession aversion is in fact more than a pure age-cohort effect.

Finally, in model 10, we introduce the variables related to the central bankers' career and to the features of the committee they manage. The results reveal that the one of significant variables in this more complete model is related to recession aversion, hence confirming the importance of this effect in decision-making. All in all, this set of results is, to our knowledge, the first confirmation of the fact that the "Depression babies" behavioral trait is also present when considering monetary policy-makers.

The policy relevance of the results is easier to catch by considering the marginal effects, provided in Table 5. The magnitude of the marginal effects is relatively large, which reveals the strong policy relevance of the variables that capture the central bankers' degree of recession aversion. In a nutshell, it appears that recession childhood periods make any central banker in our sample much more dovish. More precisely, as can be seen in Table 5, the probability of a cut is largely increased, especially when compared to the probability of a status quo.[8] Globally, the recession aversion effect, considered in isolation, is 4 to 7 times larger than the probability of a status quo. The policy relevance of the childhood generated recession aversion effect is thus important.

In Table 6 and 7, we provide two robustness checks. The first limits the period of observation to the pre-crisis era, that is based on the period 1999-2007. Although we lose almost half of the observations, the striking thing is that the recession aversion variables keep their significance,

[8]The probability of the status quo is given by the formula: $Proba - Status - quo = \frac{1}{1+e^{cst1}+e^{cst2}}$. With $cst1$, the constant value of the hike's estimates and $cst2$, the constant value of the cut's estimates. In our case, all constants are significant, which means that the probability of status quo is also significant.

and that the thrust of our results is conserved.

The second robustness check considers Japan as an outlier, given that its central bank has almost not modified its policy rates over the period (see Table 1). Hence, in Table 7, we drop Japan from the sample and run our estimates on 8 countries, for the period 1999Q1-2015Q4. Here again, most of the results are kept, and they are consistent with the recession aversion hypothesis. The main difference, however, is that the age-cohort effect becomes more robust than the maximum number of successive recession years.

4.2 Placebo tests

In order to confirm that the recession years effect on the recession aversion of central bankers captured in the previous section is not a pure statistical artefact, we run a number of placebo tests, introducing other variables that could have a behavioral influence on policymakers. Table 8 contains the descriptive statistics of these alternative hypotheses, while the results from these estimates are displayed in Table 9.

From the literature, we derive a certain number of hypotheses that may also be considered as nurturing a large degree of recession aversion. The reluctance to increase policy rates and, so doing, to engineer a recession may be caused by other, even more personal, factors. Namely, family, political tendency and educational backgrounds could also be related to the behavior we have highlighted above. In this section, we verify if these alternative assumptions can do better in explaining the policymakers' attitudes we consider.

First, concerning the family background, we build on Black et al. (2017) - and the literature therein -, who identify peer effects within the family, and study how birth order influences the amount of time which a child spends in early childhood with their siblings, and provide evidence that sibling spillovers exist, which are working at least in part through the relative exposure to parental time and financial resources. In our context, siblings spillover could impact the behavior of central bankers. To test this hypothesis, we include a number of variables related to the family situation of the central bankers in our sample: the number of siblings, the rank in the brotherhood, and a dummy variable equal to 1 if the Chairman is a single child, as well

as the number of children of the parents.[9,10] The assumption here is that either a single child or the last in line of the children may be more cared about, which may induce more recession averse behavioral traits.

Second, with regard to the political tendency and the educational background, we consider two dummy variables, one related to an officially acknowledged political tendency for Left wing parties (Labour, Social Democrats, etc.) and indicating if a central banker has completed a PhD in an institution that has a reputation for a Keynesian leaning.[11] This intellectual background could also induce recession aversion in a central banker's attitude with regard to policy-making and thus provide a useful alternative to our behavioral assumption.

As can be seen from Table 8, on average, the chairmen have 2 brothers and sisters, and around 10% of them are single children. Furthermore, around 40% of them have Left political affiliations and only 11% have completed their PhD in a Keynesian-oriented institution (nevertheless, the small number of observations for the latter variable can only induce one to be cautious with regard to the interpretation of the related results).

Table 9 displays the results for these alternative modelings. As can be seen, the model is stable, as the control variables keep their significance and their signs. Turning to the variables related to the placebo tests, we note that almost all of these variables have not a significant influence on the behavior of the Chairman (neither on the probability of a "cut" nor on a "hike"). The only significant result comes from the variable "PhD completed in a Keynesian institution". This variable has a negative and significant influence on the probability to increase the policy rate, compared to the reference situation (except when we exclude the Great Recession from the sample period, where this variable has a positive impact on the probability of a cut). These results lie in conformity with what could be expected from a Keynesian intellectual background. This section clarifies that the impact of the recession years is not an artefact, and our assumption of recession aversion is really the only effect that influences the probability of a "cut" by

[9] Among these variables, we had also considered the fact that the parents of the Chairmen worked in a public job, which means that these central bankers will tend to decrease the interest rate because of the job security of their parents. We finally removed this variable of the estimates because of the small number of observations and also because the results of this variable is led by 1 or 2 central bankers, precisely after the Great Financial Crisis. Thus, not to generalize this result on the whole of the observations, we removed this variable among the placebo tests.

[10] The sources of the variables considered throughout this section come from very varied sources, as the biographical information of the website of the considered central banks do not generally provide adequate information. Hence, we have used Who's Who (world, European and Asian editions), Wikipedia pages, biographical notices in local newspapers, central bankers' speeches, etc. Help from colleagues who have searched through websites in local languages is to be acknowledged. However, despite our efforts, the number of observations is reduced compared to the balanced dataset used in the previous section.

[11] In some cases, we have also been able to trace the advisor as being a leading Keynesian thinker.

Chairmen.

Table 10 and 11 provide the robustness checks of the alternative modelings, by restricting the sample, respectively, before the Great Financial Crisis and without Japan. In these robustness checks, the results do not change qualitatively, although the number of observations sometimes shrinks dramatically. More precisely, in Table 10, the only significant variable is to be a single child, and a Keynesian PhD. They tend to increase significantly the probability of a "cut" in the policy rate. In Table 11 (i.e., without Japan), to be a single child significantly increases the probability of a "cut", while the rank in brotherhood decreases the probability of a "cut". In parallel, to have completed a PhD in a Keynesian institution tends to significantly decrease the probability of a "hike". However, considering the low number of observations, the results related to these last estimates can only be taken with a pinch of salt.

Table 12 displays the results integrating into the estimates both the number of maximum successive recession's years of the Chairman and the significant alternative variables. The model without any restriction (model 1) shows that the insertion of the placebo variable "PhD completed in a Keynesian institution" does not affect the significance of the recession variable, and that the number of maximum successive recession's years of the Chairman always positively and significantly influence the probability of cutting the interest rate. Running the same robustness as before (i.e., observations before Great Financial Crisis and without Japan), the results remain qualitatively the same and the recession variable is always more significant than the placebo variables. These results confirm the important weight of our interest variable, and confirm that the significance of the recession variables captured in the previous section is not an artificial one, either related to an omitted variable bias or to a statistical artefact. The recession aversion effect is thus robust to the falsification tests.

5 Conclusion

In this article we analyze the interest rate setting behavior of nine major central banks within the framework of discrete choice modeling augmented with chairmen influence, testing for an early (childhood) depression influence.

We test and confirm the importance of the traditional determinants of monetary policy, i.e., inflation rate and economic growth. We also point out that inflation targeting central banks might be tempted to fine-tune the economy once the inflation target is met, but we also detect a recession-averse behavior, intensified by the early life experience of recessions by chairmen.

This confirms the presence of a "depression baby" effect, revealed for policy-makers.
Additionally, we detect some experience-driven attitudes of the chairmen (more hawkishness with an increasing number of mandates) as well as increasing with the age (as related to the committee mean) degree of conservativeness. Finally, the homogeneity of the committee is associated with somewhat higher degree of reactiveness, especially on the dovish side. Overall, our results are generally robust to alternative specifications and inclusion (or not) of the Great Recession period.
The implication of this article in term of economic policy is that, to choose a central bankers, it is important to take into account the current economic situation (crisis or growth period) and the number of recession experienced by this central banker in his childhood. For instance, this brings up the issue about whom should be chosen to manage monetary policy in 30 years from now, as choosing a central banker who born during the financial crisis of 2008 would have far-reaching consequences.

Tables

Table 1: Descriptive Statistics - Policy rates

	Overall period (1999-2015)			Period 2008-2015		
	No change	Hike	Cut	No change	Hike	Cut
Australia (AUS)	52.94%	25%	22.06%	50%	15.63%	34.38%
Canada (CAN)	50%	23.53%	26.47%	71.88%	6.25%	21.88%
Euro Area (ECB)	54.41%	22.06%	23.53%	62.50%	9.38%	28.13%
Japan (JPN)	92.65%	2.94%	4.41%	96.88%	0.00%	3.13%
New Zealand (NZL)	50%	29.41%	20.59%	59.38%	15.63%	25%
Sweden (SWE)	38.24%	29.41%	32.35%	37.50%	21.88%	40.63%
Switzerland (SWI)	63.24%	19.12%	17.65%	84.38%	0.00%	15.63%
United Kingdom (UK)	61.76%	17.65%	20.59%	87.50%	0.00%	12.50%
United States (USA)	63.24%	20.59%	16.18%	87.50%	3.13%	9.38%
Whole Sample	58.50%	21.08%	20.42%	70.83%	7.99%	21.18%

Table 2: Central banker turnovers

Country	Turnover	Central Bankers	Number of years
Australia (AUS)	2	Macfarlane	7.75
		Stevens	9.25
Canada (CAN)	4	Carney	5.5
		Dodge	7
		Poloz	2.5
		Thiessen	2
Euro Area (ECB)	3	Draghi	4.25
		Duisenberg	4.75
		Trichet	8
Japan (JPN)	4	Fukui	5.5
		Hayami	4.25
		Kuroda	2.75
		Shirakama	4.5
New Zealand (NZL)	3	Bollard	10.5
		Brash	3.25
		Wheeler	3.25
Sweden (SWE)	3	Böckström	4
		Heikenstein	3
		Ingves	10
Switzerland (SWI)	4	Hildebrand	2
		Jordan	3.75
		Meyer	2
		Roth	9
United Kingdom (UK)	3	Carney	2.5
		George	4.5
		King	10
United States (USA)	3	Bernanke	8
		Greenspan	7
		Yellen	2

Table 3: Descriptive Statistics - Recessions, chairpersons and committees

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of continuous recession's years of the Chairman	612	4.655	2.73	0	11
Number of maximum successive recession's years of the Chairman	612	1.851	1.018	0	5
Minimum value of the GDP per capita growth of the Chairman	612	-9.77	13.923	-49.374	1.309
Number of continuous recession years of the Chairman superior to 4 years	612	.382	.486	0	1
Chairman from academia dummy	612	.109	.312	0	1
Insider Chairman dummy	612	.425	.495	0	1
Committee age gap	543	3.694	8.013	-14.167	23.111
Committee professional heterogeneity	612	.365	.252	.097	1
Chairman born before World War II	612	.194	.396	0	1

Table 4: Baseline Models

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variables	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.682***	-0.120*	0.661***	-0.0824	0.657***	-0.151**	0.668***	-0.144**	0.667***	-0.156**
	(0.0919)	(0.0637)	(0.0920)	(0.0631)	(0.0925)	(0.0655)	(0.0926)	(0.0648)	(0.0923)	(0.0657)
Inflation rate (variation)	0.377***	-0.0451	0.425***	-0.0465	0.379***	-0.0407	0.377***	-0.0368	0.375***	-0.0418
	(0.0960)	(0.0716)	(0.0985)	(0.0732)	(0.0960)	(0.0719)	(0.0959)	(0.0718)	(0.0958)	(0.0727)
Global Financial Crisis	0.0110	0.560	0.0216	0.673*	0.0382	0.548	0.0427	0.588	0.0168	0.573
	(0.563)	(0.357)	(0.559)	(0.351)	(0.562)	(0.361)	(0.563)	(0.362)	(0.563)	(0.361)
Inflation targeting dummy	0.206	0.745***			0.279	0.809***	0.245	0.824***	0.336	1.027***
	(0.237)	(0.228)			(0.243)	(0.232)	(0.240)	(0.232)	(0.269)	(0.249)
Inflation target met dummy			0.945***	0.280						
			(0.321)	(0.377)						
Number of continuous recession's years of the Chairman					0.0742*	0.0993**				
					(0.0421)	(0.0418)				
Number of continuous recession years of the Chairman superior to 4 years							0.282	0.608***		
							(0.235)	(0.226)		
Number of maximum successive recession's years of the Chairman									0.146	0.382***
									(0.120)	(0.117)
Constant	-3.144***	-1.402***	-3.117***	-1.067***	-3.481***	-1.844***	-3.241***	-1.646***	-3.456***	-2.226***
	(0.329)	(0.213)	(0.317)	(0.178)	(0.389)	(0.291)	(0.340)	(0.237)	(0.435)	(0.345)
Log-likelihood	148.65	148.65	146.03	146.03	155.95	155.95	156.28	156.28	159.40	159.40
Pseudo R-sq	12.57	12.57	12.35	12.35	13.19	13.19	13.21	13.21	13.48	13.48
Observations	612	612	612	612	612	612	612	612	612	612

	Model 6		Model 7		Model 8		Model 9		Model 10	
GDP growth rate	0.679***	-0.127**	0.655***	-0.182***	0.687***	-0.137**	0.688***	-0.156**	0.716***	-0.123*
	(0.0921)	(0.0644)	(0.0926)	(0.0678)	(0.0936)	(0.0647)	(0.0947)	(0.0657)	(0.106)	(0.0729)
Inflation rate (variation)	0.380***	-0.0327	0.378***	-0.0173	0.376***	-0.0536	0.380***	-0.0454	0.389***	-0.0545
	(0.0960)	(0.0725)	(0.0957)	(0.0747)	(0.0958)	(0.0729)	(0.0958)	(0.0732)	(0.112)	(0.0828)
Global Financial Crisis	-0.0142	0.485	-0.0327	0.422	0.00790	0.674*	-0.0449	0.607*	0.314	0.642
	(0.565)	(0.360)	(0.564)	(0.369)	(0.566)	(0.363)	(0.570)	(0.365)	(0.592)	(0.400)
Inflation targeting dummy	0.155	0.586**	0.279	0.808***	0.202	1.008***	0.320	1.065***	0.402	1.024***
	(0.267)	(0.244)	(0.284)	(0.258)	(0.259)	(0.256)	(0.270)	(0.257)	(0.291)	(0.265)
Minimum value of the GDP per capita growth of the Chairman	0.00471	0.0167*	0.00965	0.0309***						
	(0.0106)	(0.00949)	(0.0116)	(0.0114)						
Number of maximum successive recession's years of the Chairman			0.190	0.505***			0.300*	0.307**	0.0693	0.300**
			(0.128)	(0.125)			(0.181)	(0.156)	(0.139)	(0.127)
Chairman born before World War II					0.0123	0.817***	-0.531	0.289		
					(0.312)	(0.304)	(0.466)	(0.413)		
Chairman from academia dummy									0.206	-0.110
									(0.412)	(0.375)
Insider Chairman dummy									-0.305	-0.397
									(0.280)	(0.254)
Committee age gap									0.0232	-0.00139
									(0.0185)	(0.0161)
Committee professional heterogeneity									-0.00786	2.263**
									(1.086)	(0.987)
Constant	-3.058***	-1.135***	-3.375***	-1.979***	-3.156***	-1.711***	-3.700***	-2.171***	-3.505***	-2.593***
	(0.382)	(0.254)	(0.449)	(0.346)	(0.338)	(0.251)	(0.494)	(0.349)	(0.529)	(0.457)
Log-likelihood	152.07	152.07	168.60	168.60	155.95	155.95	161.61	161.61	152.78	152.79
Pseudo R-sq	12.86	12.86	14.26	14.26	13.19	13.19	13.36	13.36	14.72	14.72
Observations	612	612	612	612	612	612	612	612	543	543

Table 5: Baseline Models - Marginal effects

	Model 1			Model 2			Model 3			Model 4			Model 5		
Variables	Status quo	Hike	Cut	Status quo	Hike	Cut	Status quo	Hike	Cut	Status quo	Hike	Cut	Status quo	Hike	Cut
Probability of the status quo	0.301			0.289			0.312			0.308			0.318		
GDP growth rate		1.977***	0.887*		1.936***	0.920		1.929***	0.860**		1.950***	0.865**		1.948***	0.855**
		(0.182)	(0.056)		(0.178)	(0.058)		(0.178)	(0.056)		(0.180)	(0.056)		(0.180)	(0.056)
Inflation rate (variation)		1.458***	0.0956		1.530***	0.954		1.460***	0.960		1.458***	0.964		1.454***	0.959
		(0.140)	(0.068)		(0.150)	(0.070)		(0.140)	(0.068)		(0.140)	(0.069)		(0.139)	(0.070)
Global Financial Crisis		1.011	1.750		1.021	1.960*		1.039	1.729		1.043	1.800		1.017	1.773
		(0.569)	(0.624)		(0.571)	(0.688)		(0.584)	(0.624)		(0.587)	(0.651)		(0.572)	(0.640)
Inflation targeting dummy		1.228	2.106***					1.077	2.245***		1.277	2.279***		1.399	2.791***
		(0.290)	(0.481)					(0.045)	(0.521)		(0.306)	(0.530)		(0.376)	(0.695)
Inflation target met dummy					2.571***	1.323									
					(0.825)	(0.061)									
Number of continuous recession's years of the Chairman								1.077*	1.104**						
								(0.045)	(0.046)						
Number of continuous recession years of the Chairman superior to 4 years											1.325	1.837***			
											(0.311)	(0.192)			
Number of maximum successive recession's years of the Chairman														1.157	1.465***
														(0.139)	(0.171)
Constant		0.043***	0.246***		0.044***	0.344***		0.030***	0.158***		0.039***	0.192***		0.031***	0.107***
		(0.014)	(0.052)		(0.317)	(0.178)		(0.011)	(0.046)		(0.013)	(0.045)		(0.013)	(0.037)
Log-likelihood		148.65	148.65		146.03	146.03		155.95	155.95		156.28	156.28		159.40	159.40
Pseudo R-sq		12.57	12.57		12.35	12.35		13.19	13.19		13.21	13.21		13.48	13.48
Observations		612	612		612	612		612	612		612	612		612	612

	Model 6			Model 7			Model 8			Model 9			Model 10		
Probability of the status quo	0.292			0.314			0.309			0.318			0.322		
GDP growth rate		1.971***	0.881**		1.925***	0.833***		1.987***	0.872**		1.990***	0.855**		2.045***	0.884*
		(0.181)	(0.056)		(0.178)	(0.056)		(0.186)	(0.056)		(0.188)	(0.056)		(0.216)	(0.064)
Inflation rate (variation)		1.461***	0.968		1.460***	0.983		1.456***	0.948		1.462***	0.955		1.476***	0.947
		(0.140)	(0.070)		(0.140)	(0.073)		(0.139)	(0.069)		(0.140)	(0.070)		(0.165)	(0.078)
Global Financial Crisis		0.985	1.624		0.968	1.524		1.007	1.961*		0.956	1.835*		1.368	1.900
		(0.556)	(0.585)		(0.546)	(0.254)		(0.570)	(0.712)		(0.544)	(0.671)		(0.810)	(0.759)
Inflation targeting dummy		1.167	1.797**		1.321	2.242***		1.223	2.741***		1.377	2.901***		1.495	2.785***
		(0.312)	(0.438)		(0.375)	(0.579)		(0.317)	(0.701)		(0.371)	(0.744)		(0.435)	(0.737)
Minimum value of the GDP per capita growth of the Chairman		1.004	1.017*		1.009	1.031***									
		(0.010)	(0.009)		(0.012)	(0.011)									
Number of maximum successive recession's years of the Chairman					1.209	1.656***					1.350*	1.358**		1.071	1.350**
					(0.154)	(0.207)					(0.244)	(0.212)		(0.148)	(0.171)
Chairman born before World War II								1.012	2.264***		0.588	1.335			
								(0.316)	(0.689)		(0.274)	(0.550)			
Chairman from academia dummy														1.229	0.896
														(0.507)	(0.336)
Insider Chairman dummy														0.737	0.672
														(0.206)	(0.170)
Committee age gap														1.023	0.999
														(0.018)	(0.016)
Committee professional heterogeneity														0.992	9.609**
														(1.077)	(9.488)
Constant		0.047***	0.321***		0.034***	0.138***		0.042***	0.180***		0.025***	0.114***		0.030***	0.075***
		(0.017)	(0.254)		(0.015)	(0.346)		(0.014)	(0.045)		(0.012)	(0.040)		(0.016)	(0.034)
Log-likelihood		152.07	152.07		168.60	168.60		155.95	155.95		161.61	161.61		152.78	152.79
Pseudo R-sq		12.86	12.86		14.26	14.26		13.19	13.19		13.36	13.36		14.72	14.72
Observations		612	612		612	612		612	612		612	612		543	543

Table 6: Robustness check - Before the Great Financial Crisis

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variables	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.605***	-0.328***	0.609***	-0.167	0.615***	-0.324***	0.617***	-0.323***	0.599***	-0.371***
	(0.111)	(0.116)	(0.111)	(0.106)	(0.113)	(0.116)	(0.113)	(0.117)	(0.113)	(0.119)
Inflation rate (variation)	0.282**	-0.242*	0.307**	-0.239*	0.288**	-0.226*	0.290**	-0.215	0.284**	-0.232*
	(0.122)	(0.132)	(0.123)	(0.136)	(0.122)	(0.132)	(0.122)	(0.133)	(0.121)	(0.136)
Inflation targeting dummy	0.161	1.008***			0.136	1.101***	0.150	1.038***	0.190	1.614***
	(0.278)	(0.333)			(0.289)	(0.343)	(0.280)	(0.337)	(0.350)	(0.388)
Inflation target met dummy			0.345	-0.297						
			(0.400)	(0.566)						
Number of continuous recession's					-0.0143	0.0742				
years of the Chairman					(0.0479)	(0.0540)				
Number of continuous recession years							-0.0894	0.657**		
of the Chairman superior to 4 years							(0.271)	(0.301)		
Number of maximum successive									0.0268	0.480***
recession's years of the Chairman									(0.142)	(0.139)
Constant	-2.469***	-0.631**	-2.444***	-0.427	-2.409***	-1.109**	-2.458***	-1.017***	-2.519***	-1.905***
	(0.387)	(0.292)	(0.381)	(0.278)	(0.457)	(0.458)	(0.399)	(0.348)	(0.516)	(0.481)
Log-likelihood	76.84	76.84	68.54	68.54	79.22	79.22	82.67	82.67	89.69	89.69
Pseudo R-sq	10.79	10.79	9.62	9.62	11.12	11.12	11.61	11.61	12.60	12.60
Observations	342	342	342	342	342	342	342	342	342	342

	Model 6		Model 7		Model 8		Model 9		Model 10	
GDP growth rate	0.573***	-0.369***	0.554***	-0.420***	0.646***	-0.330***	0.619***	-0.372***	0.676***	-0.377***
	(0.112)	(0.119)	(0.113)	(0.121)	(0.114)	(0.117)	(0.115)	(0.120)	(0.135)	(0.135)
Inflation rate (variation)	0.269**	-0.254*	0.268**	-0.245*	0.302**	-0.242*	0.307**	-0.222	0.339**	-0.177
	(0.122)	(0.132)	(0.121)	(0.137)	(0.122)	(0.133)	(0.122)	(0.137)	(0.140)	(0.147)
Inflation targeting dummy	-0.385	0.394	-0.238	0.936**	-0.197	1.151***	0.151	1.454***	0.133	1.342***
	(0.348)	(0.397)	(0.387)	(0.436)	(0.320)	(0.389)	(0.358)	(0.392)	(0.404)	(0.440)
Minimum value of the GDP per	0.0332**	0.0328**	0.0332**	0.0427***						
capita growth of the Chairman	(0.0137)	(0.0129)	(0.0141)	(0.0151)						
Number of maximum successive			0.0992	0.552***			0.498**	0.791***	-0.116	0.645***
recession's years of the Chairman			(0.147)	(0.146)			(0.218)	(0.209)	(0.190)	(0.197)
Chairman born before					-0.772**	0.277	-1.584***	-1.140**		
World War II					(0.338)	(0.359)	(0.521)	(0.546)		
Chairman from academia dummy									0.628	0.704
									(0.595)	(0.603)
Insider Chairman dummy									-0.455	-0.239
									(0.368)	(0.410)
Committee age gap									0.0145	-0.0698**
									(0.0284)	(0.0318)
Committee professional heterogeneity									-0.362	0.550
									(1.197)	(1.351)
Constant	-1.677***	0.227	-1.905***	-1.035*	-2.160***	-0.810**	-3.043***	-2.072***	-2.226***	-1.908***
	(0.480)	(0.431)	(0.561)	(0.551)	(0.410)	(0.370)	(0.597)	(0.503)	(0.634)	(0.644)
Log-likelihood	88.06	88.06	102.99	102.99	84.17	84.17	102.55	102.55	100.54	100.54
Pseudo R-sq	12.37	12.37	14.46	14.46	11.82	11.82	14.40	14.40	15.87	15.87
Observations	342	342	342	342	342	342	342	342	304	304

Table 7: Robustness Check - Without Japan

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variables	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.665***	-0.199***	0.636***	-0.170**	0.644***	-0.226***	0.656***	-0.220***	0.658***	-0.235***
	(0.0978)	(0.0727)	(0.0980)	(0.0718)	(0.0993)	(0.0745)	(0.0988)	(0.0739)	(0.0986)	(0.0752)
Inflation rate (variation)	0.391***	-0.0214	0.439***	-0.0189	0.391***	-0.0192	0.391***	-0.0177	0.390***	-0.0168
	(0.0981)	(0.0759)	(0.100)	(0.0772)	(0.0979)	(0.0761)	(0.0981)	(0.0760)	(0.0977)	(0.0773)
Global Financial Crisis	-0.0869	0.315	-0.0785	0.413	-0.0795	0.280	-0.0795	0.315	-0.0992	0.300
	(0.573)	(0.378)	(0.568)	(0.374)	(0.571)	(0.383)	(0.573)	(0.383)	(0.572)	(0.383)
Inflation targeting dummy	0.0165	0.562**			0.0660	0.595**	0.0412	0.621**	0.0628	0.845***
	(0.246)	(0.239)			(0.253)	(0.241)	(0.250)	(0.242)	(0.287)	(0.264)
Inflation target met dummy			0.840***	0.185						
			(0.322)	(0.378)						
Number of continuous recession's years of the Chairman					0.0499	0.0817*				
					(0.0442)	(0.0440)				
Number of continuous recession years of the Chairman superior to 4 years							0.163	0.476**		
							(0.242)	(0.232)		
Number of maximum successive recession's years of the Chairman									0.0566	0.330***
									(0.124)	(0.116)
Constant	-2.873***	-0.944***	-2.926***	-0.674***	-3.086***	-1.289***	-2.928***	-1.130***	-2.985***	-1.676***
	(0.351)	(0.236)	(0.339)	(0.200)	(0.405)	(0.306)	(0.362)	(0.256)	(0.455)	(0.363)
Log-likelihood	135.28	135.28	136.12	136.12	139.24	139.24	139.51	139.51	143.37	143.37
Pseudo R-sq	12.35	12.35	12.43	12.43	12.71	12.71	12.74	12.74	13.09	13.09
Observations	544	544	544	544	544	544	544	544	544	544
	Model 6		Model 7		Model 8		Model 9		Model 10	
GDP growth rate	0.637***	-0.218***	0.635***	-0.236***	0.669***	-0.239***	0.679***	-0.237***	0.699***	-0.198**
	(0.0992)	(0.0738)	(0.0991)	(0.0752)	(0.102)	(0.0752)	(0.104)	(0.0754)	(0.115)	(0.0850)
Inflation rate (variation)	0.390***	-0.0248	0.392***	-0.0177	0.390***	-0.0315	0.394***	-0.0341	0.419***	-0.0235
	(0.0981)	(0.0763)	(0.0976)	(0.0774)	(0.0979)	(0.0780)	(0.0984)	(0.0782)	(0.116)	(0.0897)
Global Financial Crisis	-0.0588	0.301	-0.0692	0.301	-0.104	0.396	-0.118	0.409	0.162	0.388
	(0.570)	(0.383)	(0.568)	(0.383)	(0.574)	(0.386)	(0.577)	(0.388)	(0.608)	(0.423)
Inflation targeting dummy	0.272	0.836***	0.229	0.885***	0.0256	0.842***	0.0800	0.819***	0.149	0.918***
	(0.306)	(0.280)	(0.312)	(0.285)	(0.266)	(0.259)	(0.290)	(0.267)	(0.319)	(0.287)
Minimum value of the GDP per capita growth of the Chairman	-0.0276	-0.0354**	-0.0334	-0.0110						
	(0.0178)	(0.0170)	(0.0215)	(0.0211)						
Number of maximum successive recession's years of the Chairman			-0.0751	0.283**			0.0965	-0.0669	-0.0112	0.282**
			(0.152)	(0.144)			(0.216)	(0.188)	(0.141)	(0.124)
Chairman born before World War II					0.126	1.274***	-0.0802	1.434***		
					(0.347)	(0.330)	(0.588)	(0.557)		
Chairman from academia dummy									0.126	-0.242
									(0.410)	(0.373)
Insider Chairman dummy									-0.115	-0.288
									(0.297)	(0.272)
Committee age gap									0.0295	0.00769
									(0.0189)	(0.0164)
Committee professional heterogeneity									-0.808	0.957
									(1.109)	(1.057)
Constant	-3.141***	-1.295***	-3.004***	-1.680***	-2.905***	-1.256***	-3.120***	-1.146***	-2.908***	-1.858***
	(0.400)	(0.300)	(0.461)	(0.365)	(0.353)	(0.260)	(0.582)	(0.400)	(0.563)	(0.502)
Log-likelihood	140.81	140.81	145.80	145.80	150.08	150.08	150.52	150.52	132.20	132.20
Pseudo R-sq	12.86	12.86	13.31	13.31	13.70	13.70	13.74	13.74	13.88	13.88
Observations	544	544	544	544	544	544	544	544	475	475

Table 8: Descriptive Statistics - Alternatives variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of siblings	234	1.859	1.503	0	6
Rank of brotherhood	234	1.662	1.359	0	6
Single child	234	.081	.274	0	1
Number of children of the parents	486	2.019	1.139	0	4
PhD Keynesian school	543	.105	.307	0	1
Left's political tendency of chairmen	71	.38	.489	0	1

Table 9: Placebo Tests

	Model 1		Model 2		Model 3	
Variables	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.707***	-0.266*	0.665***	-0.262*	0.797***	-0.257*
	(0.206)	(0.140)	(0.195)	(0.141)	(0.206)	(0.143)
Inflation rate (variation)	0.637***	0.214	0.613***	0.219	0.662***	0.244
	(0.194)	(0.145)	(0.190)	(0.147)	(0.196)	(0.151)
Global Financial Crisis	0.851	1.404*	0.886	1.435**	0.745	1.491**
	(1.249)	(0.720)	(1.243)	(0.718)	(1.284)	(0.720)
Inflation targeting dummy	1.698*	1.496	1.720*	1.895*	1.941**	1.687
	(0.992)	(1.006)	(0.947)	(0.993)	(0.970)	(1.050)
Chairman from academia dummy	-0.287	0.0678	-0.330	0.247	-0.0885	0.00453
	(0.988)	(0.785)	(0.984)	(0.787)	(0.976)	(0.823)
Insider Chairman dummy	-0.954	-0.754	-0.564	-0.589	-1.080*	-1.055*
	(0.611)	(0.595)	(0.729)	(0.669)	(0.624)	(0.583)
Committee age gap	0.140**	0.0994*	0.135**	0.132**	0.168***	0.107*
	(0.0595)	(0.0580)	(0.0536)	(0.0537)	(0.0579)	(0.0579)
Committee professional heterogeneity	2.904	3.616*	1.772	3.891*	5.828*	1.284
	(2.430)	(2.198)	(2.660)	(2.265)	(3.446)	(2.943)
Number of Siblings	-0.0649	-0.312				
	(0.210)	(0.190)				
Rank of Brotherhood			-0.385	-0.249		
			(0.421)	(0.229)		
Single Child					-1.092	1.443
					(1.100)	(0.917)
Constant	-5.219***	-2.379*	-4.401***	-2.945**	-6.556***	-2.448*
	(1.669)	(1.259)	(1.706)	(1.196)	(1.698)	(1.256)
Log-likelihood	93.46	93.46	92.37	92.37	94.58	94.58
Pseudo R-sq	22.87	22.87	22.60	22.60	23.14	23.14
Observations	234	234	234	234	234	234

	Model 4		Model 5		Model 6	
GDP growth rate	0.797***	-0.0766	0.718***	-0.0848	0.318	-0.322
	(0.118)	(0.0786)	(0.106)	(0.0700)	(0.262)	(0.241)
Inflation rate (variation)	0.376***	-0.0727	0.402***	-0.0589	1.405***	-0.0323
	(0.130)	(0.0900)	(0.116)	(0.0821)	(0.514)	(0.390)
Global Financial Crisis	0.367	0.713*	0.353	0.710*		
	(0.607)	(0.400)	(0.598)	(0.395)		
Inflation targeting dummy	0.241	0.784***	-0.0380	0.933***	7.971*	-5.081
	(0.304)	(0.260)	(0.319)	(0.291)	(4.660)	(6.539)
Chairman from academia dummy	0.181	-0.104	1.207**	-0.126	-3.008	-16.88
	(0.417)	(0.383)	(0.576)	(0.432)	(2.796)	(1.894)
Insider Chairman dummy	-0.271	-0.240	-0.265	-0.477*		
	(0.318)	(0.289)	(0.276)	(0.253)		
Committee age gap	0.00822	0.0108	0.0125	0.00783	0.346*	-0.196
	(0.0196)	(0.0170)	(0.0179)	(0.0159)	(0.187)	(0.259)
Committee professional heterogeneity	0.332	2.239**	-0.795	2.896***	-10.74	0.661
	(1.233)	(1.063)	(1.128)	(1.007)	(8.941)	(12.32)
Number of Children of the parents	-0.171	0.105				
	(0.144)	(0.138)				
PhD Keynesian school			-2.176**	0.108		
			(0.855)	(0.502)		
Left's political tendency of Chairmen					7.087	-1.392
					(4.419)	(6.010)
Constant	-3.175***	-2.237***	-2.873***	-2.220***	-6.363**	3.361
	(0.530)	(0.493)	(0.498)	(0.463)	(3.216)	(3.747)
Log-likelihood	136.90	136.90	155.44	155.44	36.98	36.98
Pseudo R-sq	14.57	14.57	14.97	14.97	24.68	24.68
Observations	486	486	543	543	71	71

Table 10: Robustness check of Placebo tests - Before the Great Financial Crisis

	Model 1		Model 2		Model 3	
Variables	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.990***	-0.601**	0.797***	-0.547**	0.876***	-0.546**
	(0.296)	(0.238)	(0.258)	(0.240)	(0.269)	(0.228)
Inflation rate (variation)	0.702***	0.129	0.563**	0.157	0.611**	0.134
	(0.265)	(0.212)	(0.236)	(0.217)	(0.242)	(0.215)
Inflation targeting dummy	4.776*	3.427	3.056	4.656*	2.468	2.704
	(2.524)	(2.743)	(2.858)	(2.697)	(2.297)	(1.780)
Chairman from academia dummy	0.750	1.532	0.452	2.032	0.484	1.053
	(1.572)	(1.398)	(1.609)	(1.437)	(1.536)	(1.438)
Insider Chairman dummy	-4.345**	-2.605	-3.439	-3.777	-2.681	-2.290**
	(1.864)	(1.864)	(2.969)	(2.515)	(1.970)	(0.985)
Committee age gap	0.125	0.0676	0.0570	0.111	0.0643	-0.00662
	(0.0893)	(0.108)	(0.0767)	(0.0916)	(0.0773)	(0.0958)
Committee professional heterogeneity	1.410	1.466	0.527	3.150	2.421	-5.929
	(3.083)	(3.085)	(3.679)	(3.606)	(4.379)	(4.795)
Number of Siblings	0.606	-0.0593				
	(0.385)	(0.334)				
Rank of Brotherhood			0.197	0.265		
			(0.704)	(0.534)		
Single Child					-1.023	2.844**
					(1.250)	(1.413)
Constant	-5.967**	-0.678	-3.897	-2.079	-4.466*	1.428
	(2.494)	(2.290)	(2.604)	(2.468)	(2.285)	(2.112)
Log-likelihood	59.15	59.15	56.16	56.16	62.60	62.60
Pseudo R-sq	23.24	23.24	22.06	22.06	24.59	24.59
Observations	126	126	126	126	126	126

	Model 4		Model 5		Model 6	
GDP growth rate	0.709***	-0.244*	0.669***	-0.411***	0.382	-0.304
	(0.145)	(0.135)	(0.134)	(0.138)	(0.268)	(0.242)
Inflation rate (variation)	0.318*	-0.187	0.340**	-0.211	1.572***	-0.0234
	(0.175)	(0.180)	(0.141)	(0.148)	(0.569)	(0.391)
Inflation targeting dummy	0.301	1.243***	0.106	2.008***	6.640	-5.794
	(0.409)	(0.449)	(0.458)	(0.561)	(4.723)	(6.498)
Chairman from academia dummy	0.699	-0.0172	0.834	-1.119		
	(0.573)	(0.580)	(0.716)	(0.734)		
Insider Chairman dummy	-0.318	-0.575	-0.358	-0.984**		
	(0.362)	(0.393)	(0.341)	(0.391)		
Committee age gap	-0.00173	0.00182	0.00235	0.0244	0.303	-0.221
	(0.0254)	(0.0263)	(0.0251)	(0.0274)	(0.189)	(0.258)
Committee professional heterogeneity	-0.272	1.877	-0.559	3.666***	-4.167	3.130
	(1.370)	(1.355)	(1.211)	(1.334)	(9.825)	(12.32)
Number of Children of the parents	-0.0585	0.162				
	(0.160)	(0.179)				
PhD Keynesian school			-0.431	2.427**		
			(1.159)	(1.095)		
Left's political tendency of Chairmen					4.263	-2.543
					(4.683)	(5.972)
Constant	-2.486***	-1.392**	-2.375***	-1.587**	-6.877**	3.372
	(0.601)	(0.624)	(0.586)	(0.624)	(3.356)	(3.764)
Log-likelihood	80.29	80.29	92.98	92.98	29.77	29.77
Pseudo R-sq	14.41	14.41	14.68	14.68	21.89	21.89
Observations	265	265	304	304	63	63

Table 11: Robustness check of Placebo tests - Without Japan

	Model 1		Model 2		Model 3	
Variables	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.897***	-0.350**	0.788***	-0.335**	0.768***	-0.334**
	(0.249)	(0.164)	(0.224)	(0.165)	(0.224)	(0.165)
Inflation rate (variation)	0.673***	0.176	0.631***	0.214	0.610***	0.216
	(0.206)	(0.153)	(0.200)	(0.152)	(0.195)	(0.153)
Global Financial Crisis	0.299	1.061	0.468	1.140	0.488	1.168
	(1.319)	(0.767)	(1.303)	(0.750)	(1.288)	(0.752)
Inflation targeting dummy	-1.322	-1.651	-1.678	1.137	-0.883	-1.337
	(1.471)	(1.823)	(1.644)	(1.718)	(1.493)	(1.793)
Chairman from academia dummy	-1.322	-1.767	-1.577	-1.480	-1.335	-1.753
	(1.127)	(1.140)	(1.061)	(1.293)	(1.115)	(1.237)
Insider Chairman dummy	1.662	0.0358	0.750	1.064	0.758	1.188
	(1.129)	(1.093)	(0.982)	(1.092)	(0.991)	(1.081)
Committee age gap	0.107	-0.144	0.0607	-0.0148	0.0597	-0.0290
	(0.0834)	(0.103)	(0.0663)	(0.0911)	(0.0707)	(0.0897)
Committee professional heterogeneity	0.497	-1.378	1.821	-3.376	1.359	-3.975
	(2.872)	(2.755)	(3.289)	(3.974)	(3.813)	(3.995)
Number of Siblings	0.602	-1.254***				
	(0.436)	(0.399)				
Rank of Brotherhood			0.771	-2.199**		
			(0.879)	(1.011)		
Single Child					-0.505	2.339**
					(1.107)	(1.049)
Constant	-5.184**	2.685	-4.818**	2.561	-3.870**	0.664
	(2.192)	(2.062)	(2.258)	(2.674)	(1.929)	(1.904)
Log-likelihood	95.38	95.38	87.61	87.61	86.41	86.41
Pseudo R-sq	25.79	25.79	23.69	23.69	23.37	23.37
Observations	199	199	199	199	199	199

	Model 4		Model 5		Model 6	
GDP growth rate	0.730***	-0.131	0.694***	-0.160**	0.318	-0.322
	(0.123)	(0.0854)	(0.116)	(0.0817)	(0.262)	(0.241)
Inflation rate (variation)	0.400***	-0.0301	0.434***	-0.0321	1.405***	-0.0323
	(0.133)	(0.0967)	(0.120)	(0.0887)	(0.514)	(0.390)
Global Financial Crisis	0.276	0.521	0.214	0.444		
	(0.619)	(0.420)	(0.619)	(0.420)		
Inflation targeting dummy	0.216	0.748***	-0.475	0.661**	7.971*	-5.081
	(0.317)	(0.274)	(0.354)	(0.322)	(4.660)	(6.539)
Chairman from academia dummy	0.0912	-0.237	1.531**	-0.0564	-3.008	-16.88
	(0.415)	(0.380)	(0.604)	(0.441)	(2.796)	(1.894)
Insider Chairman dummy	-0.175	-0.193	0.0641	-0.339		
	(0.331)	(0.302)	(0.303)	(0.270)		
Committee age gap	0.0176	0.0228	0.0101	0.0143	0.346*	-0.196
	(0.0203)	(0.0180)	(0.0184)	(0.0162)	(0.187)	(0.259)
Committee professional heterogeneity	-0.388	1.036	-2.168*	1.200	-10.74	0.661
	(1.257)	(1.160)	(1.187)	(1.122)	(8.941)	(12.32)
Number of Children of the parents	-0.152	0.0955				
	(0.149)	(0.142)				
PhD Keynesian school			-2.827***	-0.348		
			(0.894)	(0.529)		
Left's political tendency of Chairmen					7.087	-1.392
					(4.419)	(6.010)
Constant	-2.777***	-1.623***	-2.163***	-1.275**	-6.363**	3.361
	(0.555)	(0.514)	(0.539)	(0.540)	(3.216)	(3.747)
Log-likelihood	119.79	119.79	139.01	139.01	39.98	39.98
Pseudo R-sq	13.69	13.69	14.60	14.60	24.68	24.68
Observations	436	436	475	475	71	71

Table 12: Robustness checks: Preferred recession variable and Placebos

	All observations		Observations before the GFC		Observations before the GFC		Observations without Japan	
Variables	Hike	Cut	Hike	Cut	Hike	Cut	Hike	Cut
GDP growth rate	0.711***	-0.130*	1.236***	-0.481**	0.678***	-0.419***	0.856***	-0.264
	(0.106)	(0.0733)	(0.353)	(0.222)	(0.136)	(0.140)	(0.253)	(0.166)
Inflation rate (variation)	0.400***	-0.0486	0.931***	0.0510	0.342**	-0.193	0.619***	0.152
	(0.115)	(0.0825)	(0.322)	(0.211)	(0.141)	(0.148)	(0.205)	(0.156)
Global Financial Crisis	0.323	0.646					0.178	2.313**
	(0.597)	(0.401)					(1.326)	(1.024)
Inflation targeting dummy	-0.00983	1.241***	4.292	2.874	0.0290	1.901***	-2.960	0.377
	(0.331)	(0.319)	(4.787)	(2.090)	(0.461)	(0.582)	(2.007)	(2.053)
Chairman from academia dummy	1.105*	-0.334	-1.465	4.714*	0.768	-0.219	-1.430	-1.261
	(0.573)	(0.451)	(2.027)	(2.597)	(0.721)	(0.850)	(1.205)	(1.054)
Insider chairman dummy	-0.250	-0.380	-10.33*	5.122	-0.424	-0.492	5.850	-4.241**
	(0.285)	(0.257)	(5.388)	(3.570)	(0.373)	(0.443)	(3.663)	(2.056)
Committee age gap	0.0124	0.00102	0.292**	-0.176	0.0111	-0.0379	0.129	-0.181*
	(0.0194)	(0.0162)	(0.124)	(0.119)	(0.0301)	(0.0367)	(0.0887)	(0.105)
Committee professional heterogeneity	-0.771	2.589**	-14.83*	7.904	-0.492	1.831	-1.549	0.909
	(1.151)	(1.017)	(8.093)	(7.494)	(1.250)	(1.563)	(3.413)	(2.785)
Number of maximum successive	0.0347	0.346***	-4.108***	4.211**	-0.121	0.548***	1.156	-1.154**
recession's years of the Chairman	(0.150)	(0.131)	(1.493)	(1.999)	(0.192)	(0.200)	(0.966)	(0.483)
PhD Keynesian school	-2.041**	0.676			-0.477	1.741		
	(0.850)	(0.568)			(1.105)	(1.205)		
Single Child			11.77**	-8.374				
			(4.874)	(5.106)				
Number of Siblings							2.183	-3.447***
							(1.393)	(1.076)
Constant	-2.947***	-2.951***	8.551	-14.40*	-2.132***	-2.250***	-9.751**	7.345**
	(0.575)	(0.548)	(5.316)	(7.701)	(0.655)	(0.690)	(4.510)	(2.910)
Log-likelihood	-437.82	-437.82	-85.91	-85.91	-265.04	-265.04	-132.38	-132.38
Pseudo R-sq	15.65	15.65	32.5	32.5	16.31	16.31	28.41	28.41
Observations	543	543	126	126	304	304	199	199

	Observations without Japan		Observations without Japan		Observations without Japan		
GDP growth rate	0.804***	-0.336**	0.814***	-0.334**	0.696***	-0.198**	
	(0.239)	(0.168)	(0.240)	(0.168)	(0.116)	(0.0848)	
Inflation rate (variation)	0.638***	0.213	0.641***	0.214	0.430***	-0.0202	
	(0.203)	(0.153)	(0.204)	(0.153)	(0.120)	(0.0894)	
Global Financial Crisis	0.483	1.128	0.573	1.151	0.165	0.391	
	(1.310)	(0.805)	(1.306)	(0.816)	(0.622)	(0.424)	
Inflation targeting dummy	-1.451	1.059	-0.847	-1.388	-0.553	1.004***	
	(2.015)	(2.492)	(1.500)	(1.891)	(0.377)	(0.365)	
Chairman from academia dummy	-1.509	-1.474	-1.418	-1.763	1.418**	-0.260	
	(1.121)	(1.314)	(1.121)	(1.242)	(0.595)	(0.461)	
Insider chairman dummy	0.635	1.084	0.426	1.234	0.0300	-0.311	
	(1.141)	(1.285)	(1.137)	(1.251)	(0.305)	(0.274)	
Committee age gap	0.0672	-0.0155	0.0708	-0.0317	0.0178	0.00867	
	(0.0743)	(0.0997)	(0.0733)	(0.0961)	(0.0198)	(0.0165)	
Committee professional heterogeneity	1.690	-3.287	0.0690	-3.891	-2.015*	1.137	
	(3.362)	(4.021)	(4.366)	(4.119)	(1.198)	(1.117)	
Number of maximum successive	-0.0679	0.0127	-0.238	0.0209	-0.116	0.290**	
recession's years of the Chairman	(0.334)	(0.297)	(0.388)	(0.305)	(0.158)	(0.133)	
PhD Keynesian school					-2.772***	0.199	
					(0.882)	(0.603)	
Single Child			0.360	2.249			
			(1.808)	(1.600)			
Rank of Brotherhood	0.605	-2.134					
	(1.210)	(1.485)					
Constant	-4.556*	2.454	-3.168	0.626	-1.925***	-1.993***	
	(2.594)	(3.025)	(2.204)	(1.971)	(0.639)	(0.636)	
Log-likelihood	-141.08	-141.08	-141.50	-141.50	-403.44	-403.44	
Pseudo R-sq	23.70	23.70	23.47	23.47	15.27	15.27	
Observations	199	199	199	199	475	475	

References

Alesina, A. and N. Fuchs-Schuendeln, "Good bye Lenin (or not?) The effect of communism on peoples preferences," *American Economic Review*, 2007, *97*, 1507–1528.

Axilrod, S. H., *Inside the FED: Monetary policy and its management, Martin through Greenspan to Bernanke*, MIT Press, 2009.

Besley, T. J., J. G. Montalvo, and M. R. Querol, "Do educated leaders matter?," *The Economic Journal*, 2011, *121* (554), F205–227.

Bisin, A. and T. Verdier, "The economics of cultural transmission and socialization," *NBER WorkingPaper*, 2010, (16512).

Black, S., S. Breining, D. Figlio, J. Guryan, K. Karbownik, H. S. Nielsen, J. Roth, and M. Simonsen, "Sibling spillovers," *NBER Working paper*, 2017, (23062).

Bligh, M. C. and G. D. Hess, "The power of leading subtly: Alan Greenspan, rhetorical leadership, and monetary policy," *The Leadership Quarterly*, 2007, *18* (2), 87–104.

Blinder, A. S. and J. Morgan, "Are two heads better than one? Monetary policy by Committee," *Journal of Money, Credit, and Banking*, 2005, *37* (5), 798–811.

Chappell, H. W. J., R. R. McGregor, and T. A. Vermilyea, *Committee decisions on monetary policy: Evidence from historical records of the Federal Open Market Committee.*, MIT Press, 2005.

Chartély, P., D. Romelli, and E. Santacreu-Vasut, "Appointments to central bank boards: Does gender matter?," *Economics Letters*, 2017, *155*, 59–61.

Cogley, T. and T. Sargent, "The market price of risk and the equity premium: A legacy of the great depression?," *Journal of Monetary Economics*, 2008, *55*, 454 476.

Crainich, D. and L. Eeckhoudt, "On the intensity of downside risk aversion," *Jounal of Risk and Uncertainty*, 2008, *36*, 267–276.

Cukierman, A. and A. Muscatelli, "Nonlinear Taylor rules and asymmetric preferences in Central Banking: Evidence from the United Kingdom and the United States," *The B.E. Journal of Macroeconomics*, 2008, *8* (1).

Dohmen, T., A. Falk, D. Huffman, and U. Sunde, "The intergenerational transmission of risk and trust attitudes," *The Review of Economic Studies*, 2011, *79* (2), 645–677.

Dolado, J. J., R. M. Dolores, and M. Naveira, "Are monetary-policy reaction functions asymmetric? The role of nonlinearity in the Phillips curve," *European Economic Review*, 2005, *49* (2), 485–503.

Dong, W., "Do central banks respond to exchange rate movements? Some new evidence from structural estimation," *Canadian Journal of Economics*, 2013, *46* (2), 555586.

Dueker, M. J., "Measuring monetary policy inertia in target Federal Funds rate changes," *Federal Reserve Bank of St Louis Review*, 1999, p. 39.

Eichengreen, B., M. W. Watson, and R. S. Grossman, "Bank rate policy under the interwar Gold standard: a dynamic probit model," *The Economic Journal*, 1985, *95* (379), 725–745.

Eichler, S. and T. Lahner, "Forecast dispersion, dissenting votes, and monetary policy preferences of FOMC members: the role of individual career characteristics and political aspects," *Public Choice*, 2013, *160* (3-4), 429–453.

El-Shagi, M. and A. Jung, "Does the Greenspan era provide evidence on leadership in the FOMC?," *Journal of Macroeconomics*, 2015, *43*, 173–190.

Emmenegger, P., P. Marx, and D. Schraff, "Off to a bad start: Unemployment and political interest during early adulthood," *The Journal of Politics*, 2017, *79* (1), 315–328.

Farvaque, E., H. Hammadou, and P. Stanek, "Selecting your inflation targeters: Background and performance of Monetary Policy Committee Members," *German Economic Review*, 2011, *12* (2), 223–238.

_ , M. Norimichi, and P.-G. Méon, "How monetary policy committees impact the volatility of policy rates," *Journal of Macroeconomics*, 2009, *31* (4), 534–546.

_ , P. Stanek, and S. Vigeant, "On the performance of monetary policy Committees," *Kyklos*, 2014, *67* (2), 177–203.

Friedman, M. and A.J. Schwartz, *A monetary history of the United States, 1857 - 1960*, Princeton, 1963.

Geraats, P., *Inflation and its variation: An alternative explanation*, Cambridge University, 2006.

Gerlach, S., "Recession aversion, output and the Kydland Prescott Barro Gordon model," *Economics Letters*, 2003, *81* (3), 389–394.

_ , "Interest rate setting by the ECB, 1999-2006: Words and deeds," *International Journal of Central Banking*, 2007, *3*, 145.

Giuliano, P. and A. Spilimbergo, "Growing up in a recession," *The Review of Economic Studies*, 2013, *81* (2), 787–817.

Gohlmann, S. and R. Vaubel, "The educational and occupational background of central bankers and its effect on inflation: An empirical analysis," *European Economic Review*, 2007, *51* (4), 925–941.

Hamilton, J. and O. Jorda, "A model of the federal fund rate target," *Journal of Political Economy*, 2002, *110*, 1135–1167.

Hao, L. and W. Suen, "Viewpoint: Decision-making in committees," *Canadian Journal of Economics*, 2009, *42* (2), 359392.

Hausman, J. and D. McFadden, "Specification tests for the Multinomial Logit Model.," *Econometrica*, 1984, *52* (5), 1219–1240.

Hauwe, S. V. D., R. Paap, and D. V. Dijk, "Bayesian forecasting of federal funds target rate decisions," *Journal of Macroeconomics*, 2013, *37*, 19–40.

Hayo, B. and F. Neumeier, "Leaders impact on public spending priorities: The case of the German Laender," *Kyklos*, 2012, *65* (4), 480–511.

_ **and P.-G. Meon**, "Behind Closed Doors: Revealing the ECB Decision Rule," *Journal of International Money and Finance*, 2013, *37* (C), 135–160.

Hu, L. and P. Phillips, "Dynamics of the federal funds target rate: a nonstationary discrete choice approach," *Journal of Applied Econometrics*, 2004, *19* (7), 851–867.

Huang, A. G., E. N. Hughson, and J. Ch. Leach, "Generational asset pricing, equity puzzles, and cyclicality," *Review of Economic Dynamics*, 2016, *22*, 52–71.

Johnson, E., M. Ellis, and D. Kotenko, "Consensus building on the FOMC: An analysis of end of tenure policy preferences," *Economics Letters*, 2012, *117* (1), 368–371.

Kim, H., W. Shi, and K. Hwang, "Estimating interest rate setting behaviour in Korea: A constrained ordered choices model approach," *Applied Economics*, 2015, *48* (23), 2199–2214.

Kimball, M. S., "Precautionary saving in the small and in the large," *Econometrica*, 1990, *58*, 5373.

Lebaron, F. and A. Dogan, "Do central bankers' biographies matter?," *Sociologica*, 2016, *2*.

Malmendier, U. and S. Nagel, "Depression babies: Do macroeconomic experiences affect risk taking?," *The Quarterly Journal of Economics*, 2011, *126* (1), 373–416.

_ and _ , "Learning from inflation experiences," *Quarterly Journal of Economics*, 2016, *131* (1), 53–87.

_ , _ , and Z. Yan, "The making of hawks and doves: Inflation experiences and voting on the FOMC," *NBER WorkingPaper*, 2017, (23228).

Nojkovic, A. and P. Petrovic, "Monetary policy rule in inflation targeting emerging European countries: A discrete choice approach," *Journal of Policy Modeling*, 2015, *37* (4), 577–595.

Nourzad, F., J. Calhoun, and A. Kurkiewicz, "Federal funds futures, risk premium and monetary policy actions," *Applied Financial Economics*, 2012, *22* (16), 1317–1330.

Noussair, Ch. N., S. T. Trautmann, and G. Van de Kuilen, "Higher order risk attitudes, demographics, and financial decisions," *Review of Economic Studies*, 2014, *81* (1), 325–355.

Pixley, J., *Emotions in finance*, Cambridge University Press, 2004.

Riboni, A. and F. J. Ruge-Murcia, "Monetary policy by committee: Consensus, chairman dominance, or simple majority?," *The Quarterly Journal of Economics*, 2010, *125* (1), 363–416.

Smales, L. A., "The determinants of RBA target rate decisions: A choice modelling approach," *Economic Record*, 2013, *89* (287), 556–569.

Surico, P., "Measuring the time inconsistency of US monetary policy," *Economica*, 2008, *75*, 22–38.

Torres, R. I. and D. Shepherd, "Inflation targeting and the consistency of monetary policy decisions in Mexico: An empirical analysis with discrete choice models," *The Manchester School*, 2013, *82*, 21–46.

Vasnev, A., M. Skirtun, and L. Pauwels, "Forecasting monetary policy decisions in Australia: A forecast combinations approach," *Journal of Forecasting*, 2011, *32* (2), 151–166.

Walsh, C., *Monetary theory and policy*, 3 ed., Cambridge, 2010.