ABSTRACT
The EU budget has only recently started to feature in theories of European integration. Studies typically adopt a historical-institutionalist framework, exploring notions such as path dependency. They have, however, generally been rather aggregated, or coarse-grained, in their approach. The EU budget has thus been treated as a single entity rather than a series of inter-linked institutions. This paper seeks to address these lacunae by adopting a fine-grained approach. This enables us to emphasise the connections that exist between EU budgetary institutions, in both time and space. We show that the initial set of budgetary institutions was unable, over time, to achieve consistently their Treaty-based objectives. In response, rather than reform these institutions at potentially high political cost, additional institutions were layered on top of the extant structures. We thus demonstrate how some EU budgetary institutions have remained unchanged, whilst others have been added or changed over time.

KEY WORDS
EU budget, Historical institutionalism, path dependency, granularity, layering
1. INTRODUCTION

The development of the EU budget system has never featured prominently in theories of European integration. Only recently, with contributions such as Laffan (2000) and Lindner and Rittberger (2003), has this lacuna started to be addressed. Moreover, a special edition of this journal in December 2003 set the development of the current EU budgetary system as one of the key *explananda* for theories of institutional change in the EU (Stacey and Rittberger 2003; Lindner 2003).

In this paper, we use the term “institution” to mean “either a single or complex set of rules which govern the interaction of political actors, i.e. guiding principles which both prescribe and proscribe behaviour and are set out in the form of prescriptions – either formally established or tacitly understood.” (Stacey and Rittberger, 2003, p. 860). This contrasts with the more general use of ‘institution’ to mean “[o]rganizations [that] constitute collective political actors” (*ibid*) – such as the main decision-making bodies of the EU: Commission, European Parliament and Council of Ministers. Indeed, this latter usage is seen in the term ‘Interinstitutional Agreement’, an element of the EU Budget we discuss later.

It is common for historical institutionalism to utilise the concept of *path dependency* as a way of explaining institutional persistence and stability across time. This, in turn, is underpinned theoretically by the economic notion of increasing returns (see, *inter alia*, Pierson 2000; 2004). However, path dependency does not model explicitly the possibility of institutional change when these self-reinforcing, positive feedback processes break down or there is a change in the environment in which actors find themselves. As such, historical institutionalism has struggled to reconcile stability and change in institutions.
In this paper we integrate and develop a number of emerging theoretical elements around the coexistence of continuity and change in institutions, emphasising the importance of the granularity of perspective and adopting a fine-grained lens with which to analyse a policy framework consisting of a matrix of interdependent institutions. We thus explore more fully than previous papers the relationship between institutions within the matrix. In so doing, we propose a way of reconciling one aspect of institutional stability and change. By referring to the notion of institutional layering (see, inter alia, Thelen, 2003; Streeck and Thelen, 2004), we distinguish between individual institutions (or ‘rules’) and a matrix of institutions (or ‘policy framework’). Changing or introducing new individual institutions may not necessarily change the trajectory of the overall institutional matrix.

We then apply these ideas to the development of the EU Budget, starting from the initial budgetary institutions established in the Treaty of Rome. Our fine-grained analysis then sees us offering a different narrative explanation of the development of the budget system to other work in this area (see, inter alia, Lindner, 2003). We highlight the limitations of the initial budgetary institutions that, although allowing the EU Budget to function for many years, ultimately proved inadequate to sustain the goals intended of them. We show how these shortcomings were addressed over time. Additional institutions were agreed by the political actors of the EU and layered into the EU budgetary matrix, paradoxically, to preserve this matrix by ensuring respect for one key institution, the Balanced Budget Rule (BBR).

Moreover, we distinguish between static and dynamic institutions and show that, as these came into conflict over time within the institutional matrix, pressures arose for institutional change (or, more strictly, institutional development – see Pierson, 2004, p. 133). That is, the pressures leading to institutional change were
endogenous to the EU Budget. This stands in contrast to the situation where “[c]ritical junctures are often attributed to big, *exogenous* shocks” (Pierson, 2004, p. 135, emphasis added) – although Thelen (2003, p. 213) also acknowledges the possibility of endogenous shocks. This responds to Pierson’s concern over “the paucity of claims about *when* we should expect institutional change to occur” (Pierson, 2004, p. 139, emphasis added).

In Sections 2 and 3 we elaborate on the ideas of path dependency and institutional layering. Sections 4 and 5 utilise this framework, enhanced by categorising key institutions as either domain constraints or procedural constraints (Buchanan and Musgrave, 1999) to explain the development of the EU budget system. We emphasise the accumulation of additional, complementary institutions that ensured the goals of the initial Treaty-based EU budgetary institutions were – and continue to be – respected. Section 6 concludes.

**2 HISTORICAL INSTITUTIONALISM AND PATH DEPENDENCY**

Much analysis within the historical institutionalist literature takes a macro perspective in which there is a single unitary ‘whole’, usually the institutional configuration, as the unit of analysis. Path dependency, in explaining institutional persistence and stability, then insists on an ‘overall’ trajectory for the institutional configuration, the direction of which is reinforced after early moves in the sequence: “Path dependent processes will typically generate coarse-grained patterns of outcomes rather than fine-grained ones” (Pierson, 2004, p. 50). As elaborated below, this can be problematic as it can create too sharp a distinction between stability and change (see for example Hay and Wincott 1998; Lindner, 2003; Thelen 2003).
Path dependency is given theoretical underpinnings by reference to the economic notion of increasing returns (see, *inter alia*, Pierson 2000; 2004). The sequence of institutional choices over time increase the payoffs for certain choices further on in the sequence. North (1990, p. 95), moreover, states that it is ‘the interdependent web of an institutional matrix that produces massive increasing returns’ through strong learning effects, co-ordination effects and adaptive expectations. Crucially, it is not the choice of a single institution at one point in time that persists or is stable.

Institutional change occurs when the self-reinforcing, positive feedback processes, break down. It has, however, proved difficult to reconcile institutional stability as implied by path dependency with institutional change as implied by ‘policy reform’. We posit this difficulty has arisen because the notion of ‘institution’ has been conflated with the notion of the wider matrix of institutions that constitutes a ‘policy framework’. By adopting a fine-grained framework for policy analysis, we separate analytically the individual institutions from the overall institutional matrix. We may thus distinguish between stability or change in individual institutions and stability or change at the level of the policy framework or institutional matrix.

The concept of path dependency has been adopted increasingly in studies of EU integration (for example Holzinger and Knill 2002; Dimitrakopoulos 2001). It has a clear and obvious appeal in terms of explaining the development of the EU budget system where the Balanced Budget Rule (BBR), set out in the 1957 Treaty of Rome, and the 1970 Luxembourg Treaty distinction between Compulsory Expenditure (CE) and Non-Compulsory Expenditure (NCE) have persisted unchanged.

We hold that, with the EU Budget, the positive feedback process operates at the level of sequences of institutional choices within the institutional matrix. Once the
initial budgetary framework was established, strong self-reinforcing mechanisms (elaborated upon in Sections 4 and 5) influenced member states’ decisions over individual institutions. One such mechanism arises from the existence of significant switching costs. Replacing existing constitutionally-entrenched budgetary institutions would be costly politically: Treaty changes require unanimous agreement by the member states, giving potential ‘losers’ a veto, whilst changes in budget rules tend to be a zero-sum game (as explained below). In such a game, positive switching costs must represent a net loss for the member states. This addresses an important point made by Thelen (quoted in Pierson 2004, p. 49), that in order to understand the policy choices being made, “we need to know exactly who is invested in particular institutional arrangements”. In Sections 4 and 5 we identify the EU ‘organizations’ invested in the EU budgetary institutional matrix and consider why they agreed the institutional developments they did.

Labelling the BBR and CE as path dependent is, however, only a partial analysis. They represent ‘foundational institutions’ within the EU budgetary matrix, into which member states subsequently layered complementary institutions. This was required because the BBR was not self-sustaining: problems arose for the EU budget when, driven by CE, spending rose towards, then beyond, total available resources. The new institutions thus co-ordinated spending and revenue decisions to ensure the BBR be respected.

These additional institutions were also agreed because each member state had an interest in preserving their net budget position. Independently, each would wish to maximise their budgetary transfers but, given national vetoes and the zero sum nature of the EU Budget game, protecting budget shares (an analysis of which is presented below) represents the best outcome for the member states collectively. Member states’
preferences with regard to budget share stability and respecting the BBR therefore define a domain of feasible compromise for the development of the additional EU budgetary institutions that confirm or validate the initial, Treaty-based institutions.

3. THE LAYERING OF INSTITUTIONS

The foregoing discussion showed how adopting a fine-grained perspective enhances the application of path dependency. It is also an important part of any discussion of the layering of institutions, as it allows us to show how institutions exist in combinations: they are interdependent, with contingent relationships. As Thelen (2003, p. 233) argues, “…to understand how institutions evolve, it may be more fruitful to aim for a more fine-grained analysis that seeks to identify what aspects of a specific institutional configuration are (or are not) negotiable and under what conditions.”

Our work, however, adapts the idea of layering in one important respect. Streeck and Thelen (2005, p. 31) suggest layering occurs when “[n]ew elements attached to existing institutions gradually change their status and structure”. In contrast, we argue that new institutions were introduced into the EU budget matrix in order to preserve both key individual institutions and the institutional matrix. Furthermore, by this fine-grained perspective we can highlight the inter-institutional relationships, through which the positive-feedback mechanisms, central to the historical institutionalist perspective, will operate.

To clarify further our analysis of institutional development, we also distinguish between the spatial and temporal layering of institutions. The most prominent spatial interpretation of layering is the relationship between different levels of institutions. Three levels or layers are regularly distinguished: the macro or
constitutional-level; the collective choice or policy decision-level; and the operational level of individual decisions. Within this institutional matrix, however, constitutional rules can affect policy decision rules, which in turn can affect operational decisions, whilst other constitutional and collective choice rules are subject to the control of operational-level decisions. In this paper we associate these three levels with, respectively, EU decision-making on budgetary matters, the institutional matrix of the EU Budget and individual budgetary institutions.

Ostrom (1999, p. 38) argues that “the nested structure of rules within rules, within still further rules, is a particularly difficult analytical problem to solve for those interested in the study of institutions.” We thus use the concept of a configural relationship to describe this nested interdependency or institutional layering: each relationship between policy rules within a multi-level system cannot accurately be studied independently, because a change in one may affect the others i.e. ceteris paribus does not hold.

Configurations can be defined as a multivariate combination of many variables having emergent properties. The EU budget process is an emergent property of the relationship between different actors and budgetary institutions across time. Understanding the layering of EU budgetary institutions requires understanding the relationship between the initial Treaty-based rules and the complementary institutions agreed subsequently by budgetary actors. We explain below how critical junctures emerged through pressures endogenous to the EU budgetary process, leading to new institutions being agreed that complemented and reinforced the initial budgetary framework.

To this end, temporal layering is important because it raises questions of inherited legacies and the extent to which institutions, as artefacts of past decisions or
actions, condition a particular institutional space in which parallel or related institutions may be introduced. Specifically, whilst political actors remain capable of remaking or reforming these inheritances, historical institutionalism emphasises the common difficulties of such a task. Further, institutions may have consequences that bear little relationship to their designers’ initial intentions. Again, as shown below, our fine-grained approach helps clarify some of these difficulties.

In discussing the EU budget, we also pick up the gauntlet laid down by Pierson (2004, p. 162), about developing research on the “interaction effects among multiple institutions”. Specifically, in addition to identifying multiple institutions existing within a single institutional matrix, we interpret Pierson’s notion of “institutional coupling” as meaning institutions that exist within two separate but complementary institutional matrixes. We argue that because ‘Compulsory Expenditure’ exists within EU budgetary institutional space and Common Agricultural Policy institutional space, the 1992 CAP reform that changed the de facto meaning of CE was also a profoundly important institutional development for the EU Budget.

4. THE INITIAL DESIGN OF THE EU BUDGET SYSTEM

Following Buchanan and Musgrave (1999) we identify two types of budgetary institution. *Procedural constraints* affect the rules for reaching collective decisions; whilst *domain constraints* affect “the set of permissible outcomes or solutions that may be allowed under any agreed-on procedures” (p. 118). In this section we explain these concepts in the context of the EU budget. In Section 5 we show how a key procedural constraint, the definition and nature of CE, eventually came into direct conflict with the main Treaty-based domain constraint, the BBR. This conflict
between institutions resulted in a series of reforms, culminating in the CAP reform of 1992. As already noted, this reform changed the de facto nature of CE. Crucially, however, the de jure definition was left unchanged. This reform, therefore, did not require a change to the Treaty. The configural nature of these accumulated interdependent institutions is elaborated upon below.

4.1 Domain constraints

The 1957 Treaty of Rome set out the basic framework for EU budget-making. The most important domain constraint originating from the Treaty was a Balanced Budget Rule (BBR), set out in Article 199 (now 268): “the revenue and expenditure shown in the budget shall be in balance” each year. The was included because the Treaty authors “did not wish to offer the Communities, and in particular the Commission, any easy solutions” on spending (Strasser 1992, p. 57). This credible commitment to financial restraint addressed a potential time inconsistency problem, binding on both those signing the Treaty of Rome and their successors (see also Pierson, 2004, pp. 144-145).

Article 200 (now removed) set out transitional funding arrangements for the EU budget, with scaled national contributions for different spending areas. The “Decision of 21 April 1970” then replaced these transitional arrangements with “own resources” (OR), as required by Article 201. This Article named only the Common Customs Tariff (CCT), but the 1970 agreement confirmed also the Variable Import Levy of the CAP as an OR. Insufficient by themselves to cover EU spending, a third OR was agreed, based on VAT. The member states agreed the “Sixth VAT Directive” in 1977, but its incorporation into national law was delayed in some countries. Some
countries began VAT-based contributions in 1978, others in 1979. In the interim, national contributions continued to be based on the GNP key in Article 200.

The Sixth Directive established a common basis for applying VAT. VAT OR contributions are then based on a two-stage calculation. First, the VAT ‘base’ is determined as the total revenue that each country would collect were the Sixth VAT Directive to be implemented. Payments to the EU budget are then specified as a percentage of the VAT base (the ‘call-up rate’) capped, initially, at 1%. Combined with finite VIL and CCT revenues, the value of spending that would ensure respect for the BBR was thus fixed.

4.2 Procedural constraints

The Treaty of Luxembourg of 22 April 1970 amended Article 203 of the Treaty of Rome, introducing a distinction between two classes of expenditure, Compulsory Expenditure (CE) and Non-Compulsory Expenditure (NCE). Compulsory Expenditure (CE) is spending “necessarily resulting from this Treaty or from acts adopted in accordance herewith” (Article 203). During the 1975 budget process, the first applying this distinction, the Council of Ministers determined that CE was “all expenditure ‘in respect of which, by virtue of existing enactments, no budgetary authority, be it the Council or the European Parliament, has the right freely to determine the appropriations.’” (Strasser 1992, p. 176). NCE is thus spending “other than that necessarily resulting from this Treaty or from acts adopted in accordance herewith” (Article 203).

The crucial distinction between CE and NCE concerns the powers granted over each to the Parliament. It thus reflects the political fallout from the Empty-Chair Crisis of 1965-66. The Council’s 1975 statement implies that CE cannot be controlled
directly – once expenditure-generating policies are agreed, all resulting expenditure obligations must be met. That said, because CE is dominated by CAP ‘Guarantee’ expenditures, the institution with the greatest say over CAP policy-making has indirect control over CE: that institution is the Council. This also helps explain why the CAP has seen the fewest powers granted by the member states to the Parliament under ‘co-decision’. We thus address a concern of Thelen (quoted in Pierson 2004, p. 49) over the ‘vested interests’ argument for path dependency, that “we need to know…how those who are not invested in the institutions are kept out.”

Additionally, two related domain constraints were imposed on the Parliament. Article 203 limited the annual growth rate of NCE, set by the Commission with reference to prevailing economic conditions.4 Parliament’s de facto budgetary influence was limited still further because, initially, NCE represented less than 5% of total EU spending (it is now about 50%).

4.3 The Limitations of the ‘Foundational Institutions’

A BBR does not necessarily need an additional spending limit defined; this is provided by the total tax base. A tighter spending limit, however, reflected the concern of “easy [spending] solutions” described by Strasser and was, in turn, reflected in the limited fiscal functions assigned to the EU from and by the member states (see also Ackrill, 2003). Even so, the BBR remained vulnerable to the impact of spending decisions, especially those taken by the Council of Agriculture Ministers (CoAM). As described below, ‘open-ended’ CAP support saw CE grow, leading to the breaching of the BBR. Other institutions were thus agreed by the member states to reinforce the initial BBR domain constraint, through institutional layering. We see later how none of the foundational institutions within the initial institutional matrix of
the EU budget enforced the BBR directly. We also offer an explanation as to why the member states chose to preserve the BR rather than seek to change it.

In understanding the evolution of the EU budgetary institutional matrix, it is important to note that the BBR and own-resources system combined to ensure that negotiations between member states in the Council on changes to budget rules or the introduction of new rules, were a zero-sum game. Member states had two main preferences in terms of the outcome from institutional change: to maximise their net budgetary position and to ensure their shares of budget transfers were stable over time. Given that negotiations were zero-sum, institutional change satisfying the first preference for all member states was infeasible, whereas institutions that achieved the second preference were possible.

The data presented in Tables 1 and 2 show a simple analysis of member states’ shares of EU budgetary transfers. They indicate increasingly stable net shares for most member states. The Coefficient of Variation of own resource shares fell for almost all member states after the introduction of new budgetary institutions after 1988 (Table 1). A similar picture is seen for expenditures following the 1992 CAP reform (Table 2). This latter reform was crucial for the Budget as it changed the impact on spending growth of Compulsory Expenditure.

[Insert Tables 1-2 hereabouts]

5. THE DEVELOPMENT OF THE EU BUDGET SYSTEM, 1970-PRESENT

The initial EU budget system was defined by a set of rules consisting of, notably, the BBR, the limit on own resources available for spending and the definition of Compulsory Expenditure. The subsequent problems faced by the EU budget were
then caused by a ‘static’ BBR but ‘dynamic’ CE. The CAP and its expenditure were not part of the initial design of the budget system, but were established through the 1960s, with CE defined in 1970. How, though, was CE ‘dynamic’ and how did this threaten the BBR?

Price support, the dominant form of CAP support until 1992, maintained EU market prices at levels higher than prices in the rest of the world. The associated policy instruments had various consequences for the EU budget. Imports were prevented from entering the EU below a minimum import (threshold) price by means of a Variable Import Levy, which then passed to the EU budget. Exports to third countries, however, required subsidies from the EU budget to bridge the gap between EU and world market prices.

High prices stimulated EU production, driving down the EU market price. A system of intervention storage was thus established, so that if the market price fell below a certain level, farmers could receive a guaranteed minimum price by selling to the government instead. The associated costs were also paid by the EU budget. Moreover, the higher market price would only translate into higher revenues if farmers could sell their produce. Intervention guaranteed a buyer and was therefore central to farmers having an incentive to produce more. Price support thus drove up production, surpluses and budget costs year-on-year. Moreover, higher EU production reduced imports, reducing VIL revenues to the EU budget.

Given the definition of CE, the EU could not stop exporting or storing surpluses just because spending was rising. The only way to alter the trajectory of CAP spending was to change the expenditure-inducing policy instruments, that is, reform the CAP. It is beyond the scope of this paper to analyse CAP reforms in
detail. We do, however, discuss later the reforms of those agricultural institutions that are also located within the EU budgetary institutional matrix.

In 1979, the first year the own resources system operated in full, spending required a VAT call-up rate of 0.78%. Even in 1978, however, the Commission began considering options for future financing, given that rising CAP spending was driving total EU spending towards the own resources ceiling defined by the 1% VAT call-up rate.

In 1980 the VAT call-up rate fell to 0.73% as poor harvests globally lifted world commodity prices. Export subsidy spending fell, whilst increased export opportunities reduced demand for intervention. Unfortunately the emergence of surpluses (the expenditure raising event) was permanent whilst poor harvests (the expenditure saving events) were only temporary. The VAT call-up rate thus rose, to 0.79% in 1981 and 0.92% in 1982. In 1983 the full 1% was claimed, with a further ECU 825 million of spending (over 3% of the 1983 total) carried over to the 1984 budget. This was unsustainable and in both 1984 and 1985 the EU budget, technically bankrupt, required additional payments from the member states to keep operating.

5.1 The Fontainebleau Agreements, 1984

As a result of this budget crisis, 1984 saw the first fundamental reform of the CAP. This tackled the dairy sector, then taking over 40% of CAP spending and 30% of total EU spending, by introducing production quotas. Thus the member states layered an institution into both agricultural and budgetary institutional matrixes imposing, indirectly, a limit on this major element of CE. The Fontainebleau European Council Summit of June 1984 then approved, *inter alia*, three key budgetary measures.
First, in recognition of concerns over an inequitable distribution of EU budget transfers implied by Tables 1 and 2 – and after four years of *ad hoc* payments – a formal rebate mechanism was agreed that would reduce the UK’s net contribution each year. Second, agreement was reached to raise the VAT call-up rate to 1.4%, notionally to accommodate Portugal and Spain from 1986. This was a budgetary institution that could be changed relatively easily – thus the constitutionally-entrenched BBR was moved. Third, in response to concerns over the unrestrained growth in spending, general guidelines were produced for ‘Budgetary Discipline’, transformed into rules in December 1984:

- The Council of Finance Ministers should set a reference framework for total expenditure, with other Councils asked to ensure their decisions respect this.
- The growth rate of CAP spending should not exceed the growth rate of own resources (the ‘agricultural guideline’).
- Growth in NCE should respect Article 203 of the Treaty.

This was the first public recognition of the limitations of the initial framework, that the BBR required additional, complementary institutions to contain expenditure within the own-resources ceiling. The 1984 agreement, however, lacked any mechanism to force other Councils, notably CoAM, to respect the spending guideline. Moreover, an ongoing dispute between Council and Parliament led the latter to interpret the 1984 agreement as unilateral, binding solely on the Council, compromising the third element. As a domain constraint, Budgetary Discipline remained incomplete. In the words of James Buchanan (Buchanan and Musgrave, 1999, p. 118), the 1984 agreement may have sought to affect “the set of permissible
outcomes or solutions” to the growing budget imbalance, but it had no “agreed-on procedures” to enforce the agreed spending limits.

5.2 The Brussels Agreements, 1988

“The Community is at present faced with a budgetary situation which can only be characterised as being on the brink of bankruptcy.” Such frankness (albeit lacking the word ‘again’) indicated the deep concerns the Commission had about the budget situation by 1987. Better organisation was needed on the own resources side of the budget, complemented by greater restraint of Compulsory (CAP) Expenditures. As a result an “Inner Circle” (Moyer and Josling, 1990, p. 86) of the Budget and Agriculture Commissioners, led by Commission President Delors, prepared a package of measures, agreement on which was forthcoming in Brussels in February 1988. Some of the measures addressed directly the shortcomings of the 1984 Budgetary Discipline agreement. The “purely artificial” reference framework from 1984 (Strasser 1992, p. 210) was transformed into a domain constraint that has facilitated the orderly development of EU spending since. This five-year Financial Perspective set out EU spending in total and disaggregated by main policy area. Total spending was to rise but, reflecting new policy priorities, spending on regional policy was to double by 1992, to 25% of the total whilst CAP spending, allowed to rise in absolute terms, would fall as a percentage of the total.

To fund this, a controlled rise in the own resources ceiling was negotiated. Starting at 1.15% of EU GNP in 1988, it rose to 1.20% in 1992 and continued through the second Financial Perspective, to reach 1.27% of GNP in 1999. It has remained at this level ever since, although a subsequent technical change sees this sum now expressed as 1.24% of Gross National Income. Note that this figure is for
Commitment Appropriations, which includes money agreed for multi-annual programmes; and a margin for unforeseen expenditures. Payment Appropriations (spending in the year in question and the amount subject to the BBR) are less.\textsuperscript{11} Key to the implementation of this spending limit was the introduction of a fourth own-resource, paid by the member states on the basis of relative GNP (now GNI). This tops-up the other three own-resources to the specified limit for total own-resources.

The Financial Perspective was presented through an Interinstitutional Agreement (IIA), a device that has become an important element of budgetary planning and one that was crucial to the development of the EU Budgetary institutional matrix. Parliament and Council clashed regularly over the Budget, so a major contribution of the IIA was that it was binding on all members of the Budgetary Authority (Commission, Parliament and Council), who all contributed to its agreement.\textsuperscript{12} All three must also agree changes to the Financial Perspective – other than annual technical adjustments to real-terms spending limits to allow for inflation and GNP growth, thus to determine the actual spending limit each year.

Furthermore, the Council and Parliament are bound by the rates of increase for NCE laid down in the IIA. An interesting feature of the 1988 Financial Perspective was that the rise in regional policy spending, following the introduction of “Economic and Social Cohesion” into the Treaty via the Single European Act, required a rise in NCE above the maximum rate. In the context of the Financial Perspective and IIA, this was negotiated without the difficulties of previous years: in order to get member states (especially the net contributors) to agree to a larger EU budget, measures had been agreed to restore control over spending.

Thus the limits on EU spending set out in the Financial Perspectives are endogenous to the EU budgetary process within the straightjacket of the extant budget
rules, notably the BBR. This was the institutional baseline, on top of which these new institutions were layered to ensure respect for the BBR, now and into the future. Financial Perspectives thereby strengthened both procedural and domain constraints, developing significantly the institutional setting of the EU budget process. Monar (1984, p. 698) thus argues that “IIAs establish rules and principles which – if effectively complied with – will limit the future freedom of action of the institutions”.

Even so, fundamental problems remained, most notably with the agricultural guideline. Even after the 1988 agreement on Budgetary Discipline, it still lacked an effective enforcement mechanism, especially regarding the budgetary consequences of the agricultural policy decisions taken by CoAM. We thus wish to qualify Lindner’s (2003) argument that 1988 represented a new institutional setting:

The 1988 budget reform was accompanied by the ‘Stabilisers’ reform to the CAP. The initial proposal has been for price support levels to be cut should spending exceed a certain ‘trigger’ level. This proved unacceptable politically, but a production trigger was agreed. When production exceeded a certain level, support prices would be cut the following year. This proved inadequate to contain production and spending, most notably because CAP support prices were typically 40-60% above world levels, yet the maximum possible Stabiliser-induced price cut each year was 3%.

The basis of support thus remained fundamentally unchanged, as did the trajectory of CAP spending. As a consequence, even though the 1988 budget reform declared that agricultural spending should grow by no more than 74% of the growth rate of EU GNP, the member states failed to agree a direct domain constraint, through either the budget or agricultural policy reforms, making the enforcement of the (budget-related) agricultural guideline after 1988 just as unlikely as before.
5.3 The ‘MacSharry’ CAP Reform, 1992

The growth of EU expenditure had been driven by the ‘Compulsory’ nature of CAP spending, combined with the open-ended incentive effects of price support. Neither the budgetary nor CAP reforms of the 1980s imposed an effective procedural constraint through the definition of Compulsory Expenditure, nor a domain constraint on CAP spending. Indeed, the term ‘domain’ is doubly appropriate given that CAP spending remained the unchecked domain of CoAM, despite the declarations on Budgetary Discipline. By early 1991, when the first reform proposal was prepared, the expected CAP overspend was ECU 1.4 bn (Kay, 1998, page 51). A year later, production growth led to CoAM facing a proposed (uncompensated) ‘Stabiliser’ price cut of 11% (Kay, *op cit*, page 124). CoAM thus faced the situation that the cost of reform was less than the cost of policy stasis. Their resulting reform agreement simultaneously (self)-imposed domain constraints on CE and on their budgetary freedom.

The timing and exact nature of the reform were also motivated by pressure on the EU through the Uruguay Round of GATT trade talks.\(^{14}\) The decision was taken, first, to reduce support prices not by 3% but about 30%. Second, direct payments to farmers replaced high prices as the main instrument of farm income support. These payments sought to satisfy a key goal of the GATT by de-coupling support from production (reducing the extent to which policy support influenced production). It was in the design of these payments that the vital institutional change was made. A domain constraint was imposed on CAP spending by building a spending limit into the direct payments. This simple yet elegant solution was impossible with price support and was thus conditional on agreeing new policy instruments. The alternatives (agreeing a new definition for CE – requiring a Treaty change – or challenging the
classification of CAP spending as Compulsory – raising issues of inter-organisational politics) had enormous bargaining costs attached, which acted as a self-reinforcing mechanism consistent with path dependency.

Beef producers receive fixed-value payments, on a limited number of animals. Arable area payments also contain two limits. First, the yield figure used to convert the per-tonne value (derived from the initial price cut) into a per-hectare payment, is fixed using an unchanging reference yield. There is also a limit on the area eligible for payments. Thus the procedural constraint of CE was adapted indirectly to respect the domain constraint of the agricultural guideline, itself introduced to respect the domain constraint of the BBR, which had been incorporated in 1988 into the procedural constraint of the Financial Perspective. This shows how rules have accumulated and been layered, by successive reforms, for mutual reinforcement.

Having adopted a fine-grained analysis, we can thus offer a qualification to the argument of Lindner over the importance of the 1988 budget reforms. Whilst these were undoubtedly crucial in shaping the budgetary institutional matrix (see also Ackrill 2000a), enforcement of the agricultural guideline built into the Financial Perspective required the additional budgetary institution of the eligibility limit on CE, embedded within the 1992 CAP reform, to ensure the BBR was respected.

Whilst we do not disagree with Lindner’s characterisation of the differences between the 1970 and 1988 institutional settings (Lindner, 2003, p. 920), we have presented a series of arguments that, from a fine-grained perspective, suggest a further level of sophistication in the distinction between these two settings. Following the BBR laid down in the original Treaty we have shown that, quite unintentionally, the introduction of CE saw total EU spending take a trajectory that put it on a direct collision-course with the BBR, albeit over a decade later. The additional institutions
layered into the budgetary institutional matrix in 1988, along with key elements of the 1992 CAP reform, ensured the original institution, the BBR, was preserved. Indeed, several institutions have been agreed by the member states, in 1988 and subsequently (see Section 5.4) to reinforce the BBR and seek to ensure it would not be threatened again. In short, the 1970 agreement altered the trajectory of the EU budgetary institutional matrix – and the 1988 (and subsequent) reforms restored the original path by removing (for the time-being, at least) threats to the BBR.

In the light of the foregoing discussion, it is also interesting to note the observation of Pierson (2004, p. 155) that “[a]rguments about the sources of institutional resilience also have significant implications for recent claims about the role of political entrepreneurs as drivers of institutional change.” In both 1988 and 1992, reforms were driven by strong Commissioners, consistent with the view of Commission as policy entrepreneur (see also Laffan, 1997). That said, the levels of spending agreed for the Financial Perspectives have been driven by the member states, through the European Council. In other words, both the Commission and the Member States have played crucial roles in preserving the original trajectory of the EU budgetary institutional matrix, through the layering-in of additional individual institutions at key ‘critical junctures’.

5.4 The Fall and Rise of Binding Constraints: Recent Developments
As noted earlier, the ceiling on EU spending rose through the first two Financial Perspectives. Since 1999, however, it has remained at 1.27% of GNP/1.24% of GNI. Laffan and Shackleton (2000, p. 230) suggest this is because further increases “would have required ratification by national parliaments and might have prompted acrimonious domestic debates on future financing” (see also Laffan 2000, p. 738).
Thus again, institutional stability arises from the self-reinforcing mechanism of the bargaining costs associated with institutional change.

The EU budget debate has now shifted – from negotiating more money for specific policy priorities (e.g., regional policy) to maintaining, or even reducing, the size of the budget as EU membership rises. In agreeing the Financial Perspective for 2000-2006 (European Parliament, Council, Commission 1999), the European Council reduced the level of spending proposed by the Commission under every heading (Laffan and Shackleton, *op cit*, p. 232). Moreover, whilst the own resources ceiling was held at 1.27% of GNP, the margin for unforeseen spending, previously stable at about 0.03% of GNP ranged, in the initial Perspective for the EU15^16, between 0.08% and 0.15% of GNP. Planned spending therefore fell significantly.

The 1999 IIA also changed the decision-making procedures to make it harder for spending to be increased. For an increase less than 0.03% of GNP the Council votes by qualified majority, with Parliamentary approval needing a majority of members with three-fifths of votes cast. For spending rises greater than 0.03%, Parliament and Council must agree, but with the Council acting unanimously. As with the original BBR, the political actors involved in decision-making are thus imposing additional institutional constraints on their own (and their successors’) actions, to contain the overall size of the EU Budget and strengthen still further the institutions layered upon and enforcing the BBR.

Agreed as part of the 2003 CAP reform and effective from 2007, a further domain constraint, “Financial Discipline”, has been imposed on CAP spending. If forecast CAP spending exceeds planned levels by more than €300 million, the Commission must propose cuts to direct payments. This direct control of CAP spending was incompatible with the definition of Compulsory Expenditure under
price support. With direct payments, the issues of payment eligibility and payment level have, de facto, been separated.

Further tightening of the budget rules were proposed in mid-2004, in the EU Constitution. New own resources would require unanimous agreement in the Council and the approval of each member state. The Council may act by qualified majority, but only if the European Council approves this unanimously. The Financial Perspective also requires unanimous Council agreement, although Parliamentary approval requires only a simple majority. In short, the EU Constitution confirms national vetoes over new own resources and, in particular, over the agreement of Financial Perspectives. Change is fundamentally harder to achieve than stasis.

6. CONCLUSION

Historical Institutionalism and path dependency offer an appealing framework within which the stability and persistence of policies can be analysed and explained. They have, however, struggled to incorporate accounts of change, as represented by policy reform. In this paper we have sought to develop the existing literature by focusing on one way in which, analytically, change and stasis can co-exist. In order to do this we have adopted a fine-grained analysis, observing that a complex policy framework consists of multiple inter-related, or layered, institutions. We can thus distinguish between change at the level of the individual institution and change at the level of the overall policy framework. Indeed, in applying these principles to the EU budget, we have analysed both how and why the EU member states agreed ‘reforms’ at the level of individual budgetary institutions in order to preserve an unchanged overall policy framework.
We focus on a series of reforms to EU budgetary institutions from 1970, locating them within the continuum of institutional development starting with the 1957 Treaty of Rome and the Balanced Budget Rule (BBR). Initial institutional developments were motivated either directly by obligations laid down in the Treaty of Rome (for example establishing ‘own resource’ revenues for the EU budget), or indirectly through policy-linkages with other sectors (most notably the establishment of the Common Agricultural Policy (CAP) which, as the principal ‘interventionist’ common policy, had the greatest impact on the EU budget). Moreover, in establishing the own resources system, the member states introduced a distinction between Compulsory and Non-Compulsory Expenditures that prioritised (Compulsory) CAP income-support spending over other spending.

Gradually, the existing policy framework came under pressure, not from an exogenous source, as discussed in most of the literature on path dependency, but from within. Most notably, the nature of CAP support drove the resulting spending ever-higher, until total EU spending exceeded the own resources limit that defined the level at which the EU Budget should balance. The ‘Budgetary Authority’ (Commission, European Parliament and member states, through the Council of Ministers) were faced with a choice – new institutions could be agreed that either preserved the existing policy framework or set the EU Budget on a new path.

Path dependency gets its theoretical underpinnings from economic notions of positive feedback. One source of positive feedback pressures comes from the costs incurred by trying to change extant institutions. With the EU budget, the key institutions such as the BBR and the definition of Compulsory Expenditure are located in the Treaty of Rome, changes in which require unanimous agreement. Moreover, member states cannot all maximise their individual gains from the budget
within the zero-sum Budget game that unanimity-voting creates. They can, however, agree new institutions that preserve their shares of EU budget transfers. Thus the two costs of changing the extant institutions (negotiating costs and the potential loss of budgetary transfers) led member states to layer-in institutions that preserved the main budgetary institutions and the trajectory of the budgetary framework as a whole.

We have also shown, through the application of institutional layering, that individual institutions can occupy multiple institutional space or policy frameworks. In particular, several institutions exist within the frameworks of both the EU Budget and the CAP. These linkages are seen most dramatically through the period 1988 to 1992. The 1988 Budget reform made the BBR more transparent, but neither this (including the strengthened rules for ‘Budgetary Discipline’) nor the 1988 CAP reform altered the definition of Compulsory Expenditure and the open-ended nature of CAP support. As a result, by 1992 the BBR was again threatened by ever-rising CAP spending.

The resulting CAP reform produced the key change in terms of the budgetary framework, motivated also by the need to produce a reform breaking the link between the level of production and level of support, that would make the CAP more acceptable to other countries within the concurrent GATT trade talks. In this reform, the definition of Compulsory Expenditure was, *de jure*, left unchanged but altered, *de facto*, by locating a limit on spending within the new direct income-support payments. As a result, the policy framework of the EU Budget was returned to its original trajectory, with the BBR underpinned by additional institutions. Recently, the BBR has been strengthened further. From 2007, ‘Financial Discipline will require the Commission to propose cuts to direct payment levels if spending is forecast to rise more than €300 million above the projected levels laid down in the Financial
Perspective. Moreover, the EU Constitution has tightened the rules by which spending levels can be increased.

We have thus drawn together, within an historical institutionalist framework, the concepts of path dependency and the layering of institutions, in order to propose one way by which path dependent processes can experience ‘reform’. We have distinguished between change at the levels of the individual institution and the overall institutional matrix or policy framework. Applying these ideas to the EU Budgetary process, we show how ‘reforms’ have led to the agreement of new institutions that, when layered into the extant framework, preserve the trajectory of the latter, emphasising in particular continued and strengthened respect for the Balanced Budget Rule. Challenges remain for researchers to account for changed trajectories to policy frameworks within path dependent processes, but we offer this analysis as a step towards this goal.

____________________

NOTES

1 Pierson (2004, pp. 35-36), following Mahoney (2001), suggests that whilst ‘increasing returns’ is an appropriate term for economics, the alternatives used here are better for political analysis as they “avoid any implicit suggestion about efficiency.”

2 A distinction must be drawn between the setting of a balanced budget and a lack of control over spending failing to guarantee balanced budget outcomes.

3 For details, see pages 377-8 of the fourth (1980) revised edition of the book by Strasser.

4 This ‘maximum rate’ could be exceeded if one or more of the Parliament, Commission and Council believed Community activities needed more funds, but both Council (by qualified majority) and Parliament (by majority and 3/5 of votes cast) had to agree.

5 Ackrill (2000b) analyses CAP reforms from a budgetary perspective.

6 At this time CAP spending represented 70% of total EU spending in the member states.

7 Commission of the European Communities (1987, p. 1).
Acknowledgments and references

8 Key documents are reproduced in Commission of the European Communities (1989). Ackrill (2000a); Laffan (2000); and Lindner and Rittberger (2003) analyse various aspects of these reforms.

9 Each since has been for seven years.

10 Commission of the European Communities (2001).

11 In 2005 and 2006, Payment Appropriations for the EU25 (in 2004 prices) total 1.06% of GNI.

12 Monar (1994, p. 697 and pp. 699ff.) notes that IIAs in other policy areas are not this forceful.

13 There was a temporary fall in spending in 1989 but, as in 1979, it was caused by a coincident rise in world commodity prices.

14 See, inter alia, Kay (1998); Ackrill (2000b) for more details.

15 The average of the middle three values for 1986-1990.

16 Before adjustments were made for a larger enlargement and the switch from GNP to GNI.

REFERENCES


---

**Table 1** Member State Shares of Own Resource Contributions – Means, Standard Deviations and Coefficients of Variation

<table>
<thead>
<tr>
<th></th>
<th>Bel</th>
<th>Dk</th>
<th>D</th>
<th>El</th>
<th>E</th>
<th>F</th>
<th>Ire</th>
<th>It</th>
<th>Lux</th>
<th>NL</th>
<th>Pt</th>
<th>UK</th>
<th>Aut</th>
<th>Fin</th>
<th>Swe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-1980</td>
<td>6.6*</td>
<td>1.9</td>
<td>28.4</td>
<td>21.2</td>
<td>0.6*</td>
<td>15.8</td>
<td>0.1*</td>
<td>9.0*</td>
<td>16.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981-1985</td>
<td>5.2</td>
<td>2.1</td>
<td>28.1</td>
<td>1.5</td>
<td>19.7</td>
<td>1.1</td>
<td>13.3</td>
<td>0.2</td>
<td>7.0</td>
<td>21.8*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986-1994</td>
<td>4.3</td>
<td>2.1</td>
<td>28.2</td>
<td>1.4</td>
<td>7.5</td>
<td>19.9</td>
<td>0.9</td>
<td>14.8</td>
<td>0.2</td>
<td>6.5</td>
<td>1.2</td>
<td>13.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995-2002</td>
<td>3.9</td>
<td>2.0</td>
<td>26.4</td>
<td>1.6</td>
<td>7.2</td>
<td>17.3*</td>
<td>1.2</td>
<td>12.6</td>
<td>0.2*</td>
<td>6.3</td>
<td>1.4</td>
<td>13.0</td>
<td>2.5</td>
<td>1.4</td>
<td>2.8</td>
</tr>
<tr>
<td>1973-1988</td>
<td>5.8</td>
<td>2.1</td>
<td>28.1</td>
<td>1.4</td>
<td>6.1*</td>
<td>20.8</td>
<td>0.8</td>
<td>14.7</td>
<td>0.2</td>
<td>7.9</td>
<td>0.9*</td>
<td>17.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989-2002</td>
<td>4.0</td>
<td>2.0</td>
<td>27.4</td>
<td>1.5</td>
<td>7.6</td>
<td>18.1</td>
<td>1.0</td>
<td>13.7</td>
<td>0.2</td>
<td>6.3</td>
<td>1.4</td>
<td>12.7</td>
<td>2.5</td>
<td>1.4</td>
<td>2.8</td>
</tr>
<tr>
<td>1973-2002</td>
<td>5.0</td>
<td>2.0</td>
<td>27.8</td>
<td>1.5</td>
<td>7.4</td>
<td>19.5</td>
<td>0.9</td>
<td>14.3</td>
<td>0.2</td>
<td>7.2</td>
<td>1.3</td>
<td>15.3</td>
<td>2.5</td>
<td>1.4</td>
<td>2.8</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Std Dev</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973-2002</td>
<td>1.1</td>
<td>0.3</td>
<td>2.3</td>
<td>0.2</td>
<td>1.1</td>
<td>2.0</td>
<td>0.3</td>
<td>2.2</td>
<td>0.0</td>
<td>1.2</td>
<td>0.3</td>
<td>4.4</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.6</td>
<td>4.8</td>
<td>7.3</td>
<td>4.6</td>
<td>16.1</td>
<td>5.3</td>
<td>22.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24.3</td>
<td>8.8</td>
<td>11.1</td>
<td>5.7</td>
<td>18.1</td>
<td>11.5</td>
<td>13.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.7</td>
<td>2.5</td>
<td>9.7</td>
<td>11.1</td>
<td>8.9</td>
<td>11.5</td>
<td>8.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.5</td>
<td>13.7</td>
<td>20.6</td>
<td>13.6</td>
<td>36.5</td>
<td>20.4</td>
<td>15.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>38.0</td>
<td>17.3</td>
<td>17.2</td>
<td>16.9</td>
<td>15.6</td>
<td>15.3</td>
<td>15.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17.3</td>
<td>7.1</td>
<td>9.0</td>
<td>12.8</td>
<td>18.5</td>
<td>14.1</td>
<td>19.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16.2</td>
<td>16.1</td>
<td>10.7</td>
<td>13.3</td>
<td>18.5</td>
<td>14.1</td>
<td>19.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.8</td>
<td>2.9</td>
<td>15.3</td>
<td>4.8</td>
<td>15.4</td>
<td>4.2</td>
<td>5.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28.6</td>
<td>7.6</td>
<td>4.0</td>
<td>7.8</td>
<td>5.9</td>
<td>14.1</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td>* outliers – observations where the sub-period mean lies outside the range of full-period mean plus/minus one full-period standard deviation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data sources</td>
<td>Table 1 plus own calculations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2** Member State Shares of EU Expenditures – Means, Standard Deviations and Coefficients of Variation

<table>
<thead>
<tr>
<th></th>
<th>Bel</th>
<th>Dk</th>
<th>D</th>
<th>El</th>
<th>E</th>
<th>F</th>
<th>Ire</th>
<th>It</th>
<th>Lux</th>
<th>NL</th>
<th>Pt</th>
<th>UK</th>
<th>Aut</th>
<th>Fin</th>
<th>Swe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Means</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976-1980</td>
<td>5.8*</td>
<td>5.6*</td>
<td>20.2*</td>
<td>20.5</td>
<td>4.8</td>
<td>17.2</td>
<td>0.1</td>
<td>11.4*</td>
<td>14.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981-1985</td>
<td>3.7</td>
<td>3.7</td>
<td>16.3</td>
<td>5.4*</td>
<td>20.2</td>
<td>5.1</td>
<td>18.7*</td>
<td>0.0</td>
<td>8.7</td>
<td>18.1*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986-1994</td>
<td>3.7</td>
<td>3.2</td>
<td>14.1</td>
<td>7.5</td>
<td>12.0</td>
<td>18.6</td>
<td>5.0</td>
<td>15.1</td>
<td>0.3</td>
<td>7.6</td>
<td>3.8</td>
<td>9.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995-2002</td>
<td>2.8</td>
<td>2.2</td>
<td>14.4</td>
<td>7.6</td>
<td>17.7</td>
<td>17.1</td>
<td>4.1</td>
<td>12.0*</td>
<td>0.2</td>
<td>2.9*</td>
<td>5.2</td>
<td>9.0</td>
<td>1.9</td>
<td>1.5</td>
<td>1.6</td>
</tr>
<tr>
<td>1976-1992</td>
<td>4.2</td>
<td>4.1</td>
<td>16.6</td>
<td>6.3</td>
<td>11.3</td>
<td>19.7</td>
<td>5.0</td>
<td>17.1</td>
<td>0.1</td>
<td>9.4</td>
<td>3.2</td>
<td>13.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993-2002</td>
<td>3.2</td>
<td>2.3</td>
<td>14.2</td>
<td>7.9</td>
<td>17.0</td>
<td>17.3</td>
<td>4.2</td>
<td>12.1*</td>
<td>0.3</td>
<td>3.3*</td>
<td>5.3</td>
<td>8.9</td>
<td>1.9</td>
<td>1.5</td>
<td>1.6</td>
</tr>
<tr>
<td>1976-2002</td>
<td>3.8</td>
<td>3.4</td>
<td>15.7</td>
<td>7.0</td>
<td>14.7</td>
<td>18.8</td>
<td>4.7</td>
<td>15.2</td>
<td>0.2</td>
<td>7.1</td>
<td>4.4</td>
<td>11.7</td>
<td>1.9</td>
<td>1.5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

| Std Dev             |     |    |   |    |   |   |     |    |     |    |    |    |     |     |     |
| 1976-2002           | 1.3 | 1.2 | 2.8 | 1.5 | 3.9 | 2.3 | 0.8 | 3.0 | 0.2 | 3.4 | 1.4 | 4.2 | 0.3 | 0.2 | 0.2 |

| CoV                 |     |    |   |    |   |   |     |    |     |    |    |    |     |     |     |
| 1976-1980           | 12.1| 10.1| 16.8| 15.4| 23.2| 7.4 | 37.2| 5.2 | 19.8|
| 1981-1985           | 10.1| 8.3 | 8.5 | 31.1| 9.4 | 13.1| 6.7 | 29.3| 3.3 | 19.7|
| 1986-1994           | 31.9| 16.0| 8.4 | 17.6| 26.3| 10.6| 12.0| 15.1| 108.1| 34.5| 43.8| 11.9|
| 1995-2002           | 18.7| 12.0| 5.0 | 8.1 | 11.9| 4.2 | 12.7| 11.7| 18.5| 21.4| 10.2| 11.1| 14.2| 14.0| 11.5|
| 1976-1992           | 32.0| 27.0| 19.2| 24.7| 28.8| 12.5| 15.5| 10.0| 130.7| 21.2| 43.2| 33.8|
|-----------|-----------|-----------|
|           | 26.7      | 33.3      |
|           | 14.7      | 36.4      |
|           | 6.2       | 17.9      |
|           | 10.4      | 20.9      |
|           | 13.4      | 26.8      |
|           | 5.0       | 12.3      |
|           | 13.5      | 17.0      |
|           | 14.6      | 19.6      |
|           | 87.5      | 112.5     |
|           | 27.6      | 48.3      |
|           | 10.2      | 31.9      |
|           | 11.3      | 35.9      |
|           | 14.2      | 14.2      |
|           | 14.0      | 14.0      |
|           | 11.5      | 11.5      |

*Notes:* See Table 2.