The Euro: The Nominal (Inflation) and Real (Output, Employment) Consequences of Pitting a Single European Monetary Authority Against Multiple European Wage Bargainers

Robert J. Franzese, Jr.
Assistant Professor, Department of Political Science,
Faculty Associate, Center for Political Studies, Institute for Social Research,
Faculty Affiliate & Advisory Committee, Center for European Studies, International Institute,
The University of Michigan, Ann Arbor
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I. OUTLINE ABSTRACT

A. Monetary-Policymaking Delegation: One core aspect of the emergence of a single European currency is its effective delegation from multiple national monetary authorities to a single European, conservative, monetary authority.

1. Many other aspects: e.g., reduction in transaction costs, domestic political power shifts, international bargaining over policy objectives, etc.

2. Focus Here: impact of a single European, conservative, monetary authority and especially its interaction with multiple European wage bargainers.

B. Such delegation will likely have strong, but varying, nominal (inflation) and real (output, employment) impacts. Impacts will vary depending on:

1. Conservatism and credibility of ECB relative to the credibility and conservatism of each delegating nation’s domestic monetary authorities,

2. Political-economic (PE) institutional-structural differences from national PE to which domestic monetary authorities used to respond relative to the European PE to which European monetary authorities will respond, and

3. Especially critical for real efficiency of European monetary conservatism will be the character of the domestic wage-bargaining system relative to the characteristics of wage bargaining at the European level.
C. Expected Effects:

1. **Nominal Effects (e.g., Inflation):**
   a. **Generally:** those countries whose domestic political economies were most inflationary & whose domestic monetary authorities were least conservative should experience the greatest inflation reductions by their delegation to conservative ECB.
   
   b. **For Example:**
      - Countries, e.g., Italy, with formerly relatively dependent CBs, politically weak financial & traded sectors, & strong-but-uncoordinated collective bargaining, gain most anti-inflationary punch from delegation to a conservative ECB.
      - Countries, e.g., Germany, w/ relatively independent CBs, strong traded sectors, & coordinated or highly competitive bargaining gain least anti-inflation punch.

2. **Real Effects (e.g.: output, real income, (un)employment):**
   a. **Generally:**
      - Alters relation b/w monetary policymakers & bargainers; , contrary to previous work and to some popular conceptions, inflation reductions will have some real costs through their impact on interactions between bargainers and monetary policymakers.
      - Again, key changes are not merely in degree of monetary conservatism & credibility from shift to one ECB, but also in changing characteristics of relevant wage-bargaining audience induced by shift from domestic- to European-level authorities.
      - Those that gain most anti-inflation will also generally pay most in lost real-efficiency of their wage-barg. regulation, but shift to European ECB also undermines effective coordination at relevant, European, level => some that gain little will pay much.
   
   b. **For Example:**
      - Italy swaps relatively strong-but-uncord. domestic barg. system for similar-character European one, but swaps an accommodating domestic monetary authority for a non-accomm. European one => high anti-inflation gain at high real cost.
      - Germany swaps conservative BB for similar ECB => little nominal change, but also swaps its coordinated, traded-sector-led bargaining system, which interacted well with BB, for strong-but-uncoord. European system interacting w/ ECB => lost real efficiency of monetary/wage-bargaining interaction.

c. **Caveat:** while these effects of Euro are important and have been largely neglected, they are additional to many other expected effects discussed elsewhere, which might be more uniformly beneficial & so compensate for these real costs. An unexplored empirical question -- history will tell.
II. NOMINAL (INFLATION) EFFECTS OF DELEGATION TO THE ECB (Franzese)

A. Theory:

1. Background: The inflation effects of monetary-policy delegation depend on...
   a. Effectiveness of the delegation from the government to the CB: \( c \)
   b. The set of things to which and how inflation under government control of monetary policy
      would respond: \( g(\mathbf{X}_g) \).
   c. The set of things to which and how inflation under CB control of monetary policy would
      respond: \( f(\mathbf{X}_c) \).

2. Implications:
   a. Inflation is a “convex combination”: (e.g., a linear weighted-average:)

\[
\text{Inflation} \equiv \pi = c \cdot f(\mathbf{X}_c) + (1 - c) \cdot g(\mathbf{X}_g)
\]

b. Impact of delegation on inflation is conditional:

   (1) Formally: Inflation effect depends on everything to which monetary policies of
       politically responsive governments and conservative CBs would respond differently:
       \[
       \frac{\mathrm{d}}{\mathrm{d}c} f(\mathbf{X}_c) - g(\mathbf{X}_g) = h(x) \quad \{ x : \frac{\mathrm{d}f}{\mathrm{d}x} \quad \frac{\mathrm{d}g}{\mathrm{d}x} \}
       \]

   (2) Intuitively: The more (less) inflationary monetary policy would have been under full-
       government control relative to policy under full-CB control, the more (less) anti-
       inflationary punch gained per degree of effective delegation.

   (3) Importance: The anti-inflation impact of delegation to a conservative ECB will vary
       across country-times depending on how much inflationary pressure there would have
       been on the government of that country at that time.

B. Evidence:

1. The historical record of inflation in developed democracies (N. Am., W. Eur., Oceania,
   Japan) under “flexible” exchange-rates (1972-90±) supports this view of the inflation
   effects of delegation to conservative CB’s much more strongly than the cruder common
   view that the effect is some fixed inflation-reduction per degree of effective delegation.

2. Evidence specifically suggests:
   a. Inflation under government control responds to partisanship, elections, union power,
      bargaining coordination, openness, financial-sector strength, and inflation abroad.
   b. Inflation under CB control is lower and responds much less if at all to any of these.

3. Application to ECB situation (assuming ECB quite effective and conservative):
   a. Those countries that already had quite independent CB’s gain little more from ECB.
   b. Countries with weak or strong-but-coordinated unions, strong traded and financial sectors,
      and strong right governments also gain little from their CB or from the ECB.
   c. Only those with strong-but-uncoordinated unions, weak traded and financial sectors, strong
      left governments, and weak CB’s gain much from delegation to ECB.
C. An Interesting Thing About the Results:

1. By 1990, virtually no country stood to gain any further anti-inflationary bite from increasing effective delegation to a conservative CB (ECB)...
   a. ...because their political economies are already quite anti-inflationary: high and rising openness and financial-sector strength, declining union power, right governments...
   b. ...implying (anti-)inflationary political-economic pressures on government are low (high), so responsive governments currently do little different than conservative CBs.

2. So why all the impetus toward increasing CB autonomy and conservatism, a key aspect of the EMU and now Euro project?
   a. Politics: Not because it is most anti-inflationarily necessary—indeed, political weight behind anti-inflation makes it least necessary now—but because that political weight makes it possible now. I.e., we are likely observing anti-inflationary forces attempting to seize upon their current political strength to entrench their preferred monetary stance. One would accordingly expect to see political pressures in the other direction, away from conservative delegation, exactly when it would have had most bite, which is also when it will have had least political support.
   b. Previous Theory, Simple Evidence & Anecdotes, and Conventional Wisdom
III. REAL (OUTPUT, EMPLOYMENT) EFFECTS OF DELEGATION TO THE ECB

A. Standard Theory, Simple Evidence & Anecdotes, and Conventional Wisdom

1. Std Theory: (Kydland-Prescott, Barro-Gordon, Rogoff, Lohmann, Cukierman, others)
   a. Given nominal and real rigidities in economy, such as those created by wage/price bargaining, monetary authorities have incentives to create surprise inflation, thereby lowering real wages (prices) and thus spurring employment (real demand):

   \[ \text{Nominal + Real Rigidities } \Rightarrow \text{ incentive to create surprise inflation.} \]

   b. Private sector is, however, aware of these incentives & incorporates their inflationary consequences into its wage/price setting. In rational-expectations eqbm, monetary authorities cannot systematically surprise private actors, so real wages (prices) and output (employment) are unaffected on average while inflation is higher.

   \[ \text{Can't systematically surprise private sector, so average real-effect=0; inflation high.} \]

   c. If, contrarily, monetary authorities could credibly promise to refrain from inflationary policy, private actors could set lower wages (prices) without fear of being surprised so that, again, real wages (prices) and thus output (employment) would be unaffected on average, while inflation could be lower than without credible commitment.

   \[ \text{If monetary authority could credibly promise no surprises, infl. low & no real-effect.} \]

   d. Finally, institutionalizing a conservative CB with relative autonomy from political authority is held to provide such credibility; therefore, central bank autonomy and conservatism reduces inflation without adverse real effects on average.

   \[ \text{CB autonomy and conservatism = credible promise to forego monetary surprises.} \]

2. Standard Simple Evidence: (Cukierman, Alesina-Summers, others)

3. Prominent "Real-World" Examples: US, Germany, Switzerland = most famously strong CBs = share low-inflation experience = widely varying unemployment experience.

4. ==> Conventional Wisdom: delegate to conservative ECB ==> low infl. @ no cost!
B. Several Reasons Why This Conventional Wisdom May Be Wrong

1. Staying strictly within the standard theory: (Calmfors, Sibert, others):
   a. The incentive to create surprise inflation, and thus the gap between inflation under a conservative CB and a responsive government, comes from gap between the government’s desired output/employment and the natural rate.
   b. The natural rate of employment is too low and depends on many things, including “bad” labor-market policies, which the government also controls.
   c. “Bad” structural or “supply side” policies lower the natural rate and thereby increase inflation under government control, which inflation the government also dislikes.
   d. But delegation to a conservative ECB drastically reduces these inflation effects and so lowers the incentive for governments to undertake beneficial structural reforms, which presumably have political opposition else they’d be reformed already.

   \[\Rightarrow\] Delegation to conservative ECB lowers govt. incentives to undertake beneficial reforms.

2. Adding varyingly coordinated bargaining to the standard theory: (Iversen & Soskice)
   a. Coordinated bargaining does two things:
      (1) It internalizes more of the real-wage externalities (i.e., the unemployment effects) of nominal-wage increases within more-coordinated bargaining-units.
      (2) But it also reduces the relative-wage (i.e., unemployment) effects on one unit’s nominal-wage increases.
      (3) The combination produces a hypothesis that moderate coordination is bad and both highly coordinated and highly competitive bargaining is better.
   b. Delegation to a conservative CB (ECB) reduces the degree to which monetary policy will accommodate nominal-wage settlements.
      (1) Non-accomm. increases (beneficial) real-wage effect of coordination.
      (2) Non-accomm. affects all bargains equally, thus no impact on (deleterious) relative-wage effect of coordination.
      (3) Combination suggests that \( eqbm., real \) benefits (or costs) of credible monetary conservatism increase (or decrease) in the coordination of bargaining.

   \[\Rightarrow\] Delegation to conservative ECB has greater (less) real costs (benefits) the less coordinated bargaining at the European level relative to at the domestic level.

3. Adding inflation-aversion & coord. barg.: (Hall, Franzese, Lindbeck, Cukierman, others)
   a. Inconsistency in std theory: monetary authorities dislike infl., no private actor does
   b. The effects described in 2. hold here too, combined with a version of 1. ...
   c. Private-sector infl.-aversion adds another effect to coord. barg., also modified by ECB
      (1) More-coordinated bargainers internalize more of the inflation effects of their excess nominal settlements, this increases the benefits of coordination.
But, if delegation to ECB creates a non-accom. monetary authority, inflation-effects are dampened and, with them, the bargainers incentives to restraint.

d. Combination produces real, eqbm. effects of credible monetary conservatism that worsen going from very-low to low-medium coordination and improve going from high-medium to very-high coordination.

===> Delegation to conservative ECB has greater (less) real costs (benefits) the more mid-level the bargaining coordination at the European level relative to at the domestic level.

4. Departing more from the standard model:
   a. Adding a concern for wage-equalization among bargainers: (Iversen)
      (1) Very-high coord. now also tends to equalize wage increases across workers of different productivity growth, increasing real inefficiency unless wage-drift allowed.
      (2) Non-accom. monetary authorities now worsen the real effects of coordination. The rest is similar to the above.

===> Assuming coord. at European level is low-to-mid, delegation to non-accom ECB has greatest real costs where bargaining most coord. domestically, sacrifices real benefits where barg. mid coord. domestically, and ambiguous impact where bargaining is highly competitive domestically.

   b. Adding sector-differentiated bargainers: traded, private non-traded, public (Franzese)
      (1) As before+non-accom. hits traded hardest and public weakest, private non-traded b/w.
      (2) Only one monetary policy ==> effects depend on relative size & strength of sectors.
      (3) As before+non-accom. has greater/less real costs/benefits where traded bargainers dominate (large) public-sectors and vice versa.

===> Costs (benefits) of delegation to ECB greatest (least) where bargaining was more coordinated-and-traded-sector-led domestically (relative to European level), etc.

C. Evidence: (Hall, Franzese, Iversen, Hall-Franzese, Cukierman-Lippi)
   1. As w/ theory, some disagreement. Problem is that theory suggests the complex non-linear relations b/w bargaining institutional-structure and real effects are altered in complex ways by delegation to monetary conservatives.
   2. Like the theory, though, two points of agreement:
      a. Delegation has real long-run effects that depend on labor-mrkt. institutional structure
      b. Moving from mid-to-high coordination to low-to-mid coordination increases/lowers the costs/benefits of credible delegation to monetary conservative.

D. Implications for ECB: most of Europe had moderate coordination; bargaining will likely exhibit lower coordination across Euro countries ==> theory and evidence agree that, regarding its interaction with European bargainers, ECB & Euro will be less/more beneficial / costly than conventional wisdom expected.
IV. CONCLUDING REMARKS:

A. Inflation effects of the delegation to a conservative ECB entailed in the Euro

1. Generally small both because much already felt in EMU and because anti-inflationary PEs now norm across Europe, so govts would do little differently than conservative ECB.

2. Depend on PE of Europe as a whole relative to domestic economy:
   a. Appreciable only where domestic monetary authorities, a convex combination of the CB and government, were relatively inflationary because bargaining coordination, openness, and finance-sector strength low, and union power and left govts strong.
   b. All these considerations matter relative to their levels in Europe as a whole, to which the ECB will presumable respond.

B. Effects of that delegation on the real efficiency of wage/price regulation in Europe

1. Depend on the institutional-structure of bargaining Europe-wide relative to domestic.

2. Net effect country by country depends on whether...
   a. ...ECB amounts to an increase in monetary conservatism (non-accom.) and...
   b. ...Europe-wide low-to-mid coord. amounts to increase or decrease from domestic.

3. Generally, more deleterious on these grounds than common wisdom perceives either...
   a. ...because implies the loss of effective interaction between a conservative monetary authority and mid-to-high coord. bargainers (e.g., Germany), or...
   b. ...because ECB implies an increase in monetary non-accommodation of wage drift relative to domestic authorities in countries with low-to-mid coord. (but high union power) like Europe as a whole is likely to exhibit (e.g., Italy).

C. Reminder of the caveat

1. Many other effects of the Euro project, e.g., decreased financial-transaction costs

2. Some may run in other directions, may totally or more than totally offset these effects.

3. No claim that these are even the most-important effects, let alone only ones, just that these have been relatively neglected.

D. What can be done to improve the real-efficiency of the interaction of the ECB with its wage/price-bargaining audience?

1. Increase coordination (to moderate-high) of European bargaining:
   Likely very hard to do directly, but pattern-setting system like Germany’s or Japan’s (or US auto) may be possible (outside chance). Establish norm that lead bargain in Germany (traded-sector led, allows wage-growth diversion) sets pattern for it, and that for rest of Euro-zone. Must establish simultaneous norm that ECB responds thereto.

2. Moderate the anti-inflation zeal:
   Recognizing the real costs a good first step: trade-offs, no free lunches, etc. But trade-off, lack of anti-inflation zeal also a cost. See caveat also, and also very hard to do!