Breaking the Fetters:
Why Did Countries Exit the Interwar Gold Standard? *

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Abstract

A near consensus holds the slow demise of the interwar gold standard in part responsible for the spread and depth of the Great Depression. Why were governments so reluctant to shed their golden fetters in the face of mounting pressures? We explore the determinants of exit decisions for a large group of countries in the center and periphery. Specifically, we test four broad hypotheses advanced by economic historians to explain the timing of exits including the role of economic shocks, credibility concerns, mentality and network effects, and political variables. The empirical results are consistent with the thrust of all four hypotheses though the weight of evidence points to economic factors as the major driving force of regime decisions.

Key words: Great Depression, Interwar Gold Standard, Political Economy

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I Introduction

> *"[T]he constructs of history – mentality, discourse and mass politics – are needed to understand adherence to this policy."* (Eichengreen and Temin (2000:185)

More than seventy years after its passing, the Great Depression maintains its strong hold on economic discourse, in turn fertilizing the debate on contemporary monetary policy. Over time, the terms of discussion have markedly shifted. An earlier US-centric view has given way to a comparative inquiry in the Williamson tradition. The broadening focus naturally emphasized the role played by systemic characteristics in causing, propagating and deepening the global recession. In this regard, the interwar gold standard has figured prominently among the systemic culprits (Temin (1989)): by imposing "golden fetters" on the authorities, adherence to the standard made countries susceptible to international monetary shocks, vulnerable to shifts in market faith in the stability of the system and deprived them of policy options to combat the deepening slump.

Indirect but compelling evidence on the restrictive nature of the standard is provided by the economic rebound enjoyed by most countries choosing to exit the system in the center and the periphery (Eichengreen and Sachs (1985), Campa (1990)). Yet, even as early leavers seemed to benefit, most governments were reluctant to abandon their shackles. Strongly attached to the rule, authorities were prepared to suffer deflation and recession; in small periphery countries augmented by terms of trade declines and rising real indebtedness in the face of shrinking capital inflows.

What explains this curious insistence on prolonged suffering? Why, as Barry Eichengreen (1992) asked over a decade a go, did countries stay "*wedded to gold for so*

long…..why were some more inclined than others to release their gold fetters?" Much as is the case today, the monetary decisions of the time reflected a combination of considerations. John Maynard Keynes famously emphasized the lasting hold of ideas, a theme that has been taken up in modern analyses. To be sure, what Eichengreen and Temin (2000) refer to as the mentality mattered; resorting to the orthodox tools of deflation came natural to most central bankers. The exit of Britain was thus not just a shock to the global economy, but to the global mindset, prompting many other countries to follow suit.

Yet a changing mentality – and for that matter any systemic feature - cannot be the whole story. Some countries exited well before Britain, eschewing the still dominant orthodox view. Others remained on gold long after Britain's departure had dealt orthodoxy a fatal blow. Traditional economic factors provide another part of the answer (Hamilton (1987), Bernanke (1995)). Trivially, industrialized countries blessed with ample reserves faced less pressure to exit than did reserve-poor developing countries facing adverse term of trade shocks and dwindling capital inflows. Small open economies that were highly dependent on a dominant trading partner – primarily Britain and the United States – preferred to maintain bilateral parity and hence mimicked the leader's decision.

Aside from these special cases, the optimal exchange rate regime was more ambiguous. Even in countries facing speculative attacks and the threat of currency and banking crises, the exit from the interwar gold standard ultimately reflected a choice between the benefits of adherence and their costs in terms of prolonging deflation, recession and political instability. A small empirical literature explores the factors

influencing this choice, though the field remains sparsely ploughed compared with the rich comparative literature on the economics of the Great Depression. In particular, while a number of studies have examined decisions in the European/centre countries (Zimmermann and Saalfeld (1988), Simmons (1994), Wandschneider (2005)), less is known about the political economy of choices in the (non-European) periphery, a primary focus of our inquiry into the global dimensions of policy making during this period.

The scarcity of comparative work does not reflect the absence of a conceptual framework. Over the last two decades, a number of noted economic historians including Michael Bordo, Carlos Diaz-Alejandro, Barry Eichengreen, Charles Kindleberger, Harold James and Peter Temin have advanced hypotheses to account for the attachment of countries to and the timing of their departures from the gold standard. This literature is fruitfully complemented by a political science literature exploring the episode.[2] The explanations advanced in these twin literatures are broad-ranging, encompassing the economic, social and political sphere; emphasizing conditions at the country level as well as international factors including financial shocks, social and government stability, international leadership, intellectual dogma, and the legacy of past history.

In this paper, we take a Williamsonian comparative approach to explore the issue. Based on a rich dataset covering close to forty countries from the center and periphery, we ask four questions suggested by the literature. First, did countries with comparatively poor economic performances depart earlier? Second, did the combination of rising costs of signaling credibility and shrinking benefits from the "good housekeeping seal of approval" prompt borrowers to exit? Third, what role did national and systemic

[2] In addition to Simmons (1994), other key contributions include Gourevitch (1984), Berman (1998) Drake (1989), Weir and Skocpol (1985) and the collection of article in Hall (1989).

attachment to gold play in delaying and accelerating the departures? Four, did the domestic political environment condition the exit decision?

The paper divides into four additional parts. Section II presents a condensed review of the debate, providing a background for developing the specific testable hypotheses outlined in section III. Section IV presents the empirical results and section V concludes.

II The Rise and Fall of the Interwar Gold Standard

> *"The old authorities and rules on economic policy were shattered. It was a time calling for reliance on one's discretion."*
> *Diaz Alejandro (1984)*

The classical gold standard ended with the suspension of convertibility and gold shipments following the outbreak of WWI. Under the traditional contingency rule (Bordo and Schwartz (1994)), the suspension was expected to be temporary, to be reversed once hostilities ceased. And indeed, despite the unexpected length, human and economic cost of the war, a return to gold remained a near universal, indeed, near-instinctive- goal as it finally ended. Yet goals did not map into action. By late 1919 only five countries operated under gold. For most other countries, an early resumption proved difficult. Some were newly independent and lacked reserves. In others, sustained fiscal problems – often reflecting social spending claims by the enlarged electorate - translated into cumulative inflation preventing a return at the desired (pre-war) parity or even into outright hyperinflation (James (2001)).

Restoring the International Financial System

Despite these difficulties, no credible alternative to the gold standard gained traction. The debates in Brussels and Genoa, while acknowledging and indeed occasioned by the difficulties faced by many countries, were marked by an underlying consensus on the ultimate goal of re-establishing the gold link (Bordo, Edelstein and Rockoff (1999)). While the ultimate goal was widely shared, motivations differed across countries. For Austria, Germany and the other hyper and high inflation countries, the gold standard promised assurance against a relapse into fiscal profligacy, underpinning policy credibility. In Britain, the restoration of the gold standard at the pre-war parity was closely intertwined with identity issues in the wake of America's ascendance.

For countries in the periphery, the tradeoffs were similarly multi-facetted. As exporters of primary products prone to volatile terms of trade movements, strict adherence to gold was prima facie less appealing (Blattman, Hwang and Williamson (2004)). Yet donning the golden shackles promised other benefits. Following the rules of the gold standard while maintaining tight fiscal control - the model of the League of Nation Stabilization loans, and the core program recommended by influential advisors such as Kemmerer[3] - provided a "seal of good housekeeping", facilitating access to the financial markets in London and New York and easing the task of attracting foreign direct investment (Yeager (1984), Bordo and Rockoff (1996)). Thus, the model appeared to simultaneously authenticate orthodox ideas of the era, satisfy the interests of

[3] Brown (1940) provides a capsule summary of the prevalent model, encompassing steps to "*to balance national budgets and stop inflation; to direct the flow of long term capital to countries financially and economically disorganized by the war and to safeguard that capital; to generalize and develop the institution of central banking and safeguard the independence of central banks; to adopt measures of gold economy; to reach a settlement of past debts*". See Drake (1989) for a detailed account of how the model was promoted in the Andes.

international bankers and legitimize proposals favored by ruling elites facing domestic opposition (Drake (1989)).

As Figure 1 reveals, the golden lure coupled with an improving global economic outlook eventually enabled governments to overcome the varied domestic obstacles and join the emerging interwar financial system.[4] It took more than five years for the momentum to build: while only seven countries joined between 1920 and 1924, thirty-one took the plunge in the next four years, bringing membership to forty-three at the end of 1928. With few exceptions, all countries on the classical Gold standard had joined and so did the majority of newly independent states. The year 1929 demarks both the highpoint of the interwar standard – with three more members joining – and the reversal as a first group of five countries departed.

At its peak, the interwar standard resembled its predecessor in terms of coverage. Yet, as Keynes famously noted, the world had changed, and with it the economic and political framework in which the gold standard operated.[5] On a systemic level, the standard now rested on two rather than one central currency, yet the leadership position once occupied by the Bank of England remained vacant (Kindleberger (1986)). Gold shortages, aggravated by the failure of surplus countries to recycle gold, prompted central banks to hold convertible foreign currency reserves. While sidestepping the immediate problem of reserve shortage, this came at the cost of enhanced fragility if the

[4] There is some ambiguity in dating both entry and exit (as well as in allocating countries to the center and the periphery). The return to gold typically involved multiple steps, proceeding from fiscal to exchange rate stabilization to the de facto or de jure adoption of the gold standard (Officer (2001)). The figure is based on the entry and exit data given in appendix Table 1.

[5] The differences are discussed in Eichengreen (1992, 1995a), Bordo and Eichengreen (1998), Bordo, Edelstein and Rockoff (1999), Bernanke and James (1999) and Officer (2001).

convertibility promise of the reserve currencies were to come into doubt, as was indeed to be the case in 1931 (Triffin (1947)).

Economically, the emergence of organized labor, coupled with the increasing importance of differentiated products in new industries reduced wage and price flexibility, disabling a crucial adjustment channel (Eichengreen (1992)). The rise of labor challenged the defense of the parity as the unquestioned monetary policy goal. Buttressed by the increased attention given by such influential economists as Cassel, Hawtrey and Keynes to the links between money and activity, employment stimulation emerged as a rival monetary policy objective. As governments violated the rules of the game in an – ultimately futile - attempt to insulate output and employment from external shocks, international cooperation suffered, and credibility weakened, in turn reducing the benefits of adherence to the standard (Simmons (1996)).[6]

The Collapse of the Interwar Standard

Collectively, these flaws weakened the health of the interwar gold standard from the onset (Bordo and Eichengreen (1998)). In the late twenties, robust growth coupled with ample capital flows camouflaged the inherent frailty which was however soon exposed in the wake of three shocks.

The slow demise began with the monetary tightening in the United States, reducing capital outflows and forcing deficit countries to (belatedly) tackle their imbalances (Eichengreen and Portes (1986)). As fresh capital diminished, so did the reward for emerging countries donning the golden fetters as a signal to facilitate external

[6] As Obstfeld and Taylor (2003) note, while under the classical standard membership per se shaved off about half a percent of the borrowing spread, a richer set of determinants – including British Empire membership, public debt and not least the exchange rate itself influenced borrowing costs after the war.

borrowing.[7] Responding to the new circumstances, a first group of countries in the Americas - Argentina, Brazil, Canada, Paraguay and Uruguay – left in 1929. Yet they were the exception. Even in the face of the spreading crisis, the gold mystique exerted its sway. Beholden to the orthodox view, central banks in both mature and emerging economies resorted to the much impaired traditional tool of disinflation coupled with protectionism in an increasingly desperate ploy to remain on gold.[8]

The next act of the unfolding drama took place in Europe. Faced with an impending collapse of its banking system, Austria guaranteed the deposits of the failing Creditanstalt, placing the convertibility promise in doubt. While a speedy international loan might possibly have stopped the crisis in time and sent a signal of systemic solidarity, this was not to be, Austria was forced off gold standard before support came forth. The collapse sent a triple negative signal; emphasizing the fragility of paper claims; eroding confidence that the surplus countries would come to the rescue of governments facing reserve shortages and, related, illustrating the scarcity of policy options for countries absent international co-operation.

Within weeks, the Austrian crisis had spilled over to neighboring Germany.[9] With the gold standard in its death throes in both countries,[10] attention shifted to Britain. A remarkably short two months after Germany's exit Britain succumbed. Unlike the prior

[7] A contemporary flavor of the unfolding events is provided in Fisher (1933, Australia), Frankel (1933, South Africa), Thomas (1935, India) and Smith (1936, Poland).

[8] As Eichengreen and Temin (2000:183) note, the influence of the dominant doctrine, already lamented by Keynes, remained crucial*: "the most important barrier to actions that would have arrested or reversed the decline was the mentality of the gold standard."*

[9] The ultimate exit reflected the combination of the external shock and their domestic repercussions with political (in)action as detailed in Ferguson and Temin (2001) where they diagnose a "failure of political will" as an important aspect of Germany's exit.

[10] While Germany exited in July 1931, Austria formally held on the standard until September.

departures, Britain's exit – after having struggled so valiantly (if perhaps unwisely) to restore the pre-war parity - caused irreparable harm to the gold standard mystique. With the Lord Keeper of the Seal herself ignominiously forced off gold, the credibility costs for periphery countries shedding their fetters evaporated. Countries in the British sphere of influence left with her[11], a pattern repeated two years later when the United States exited.

In the periphery, the demise of the mentality had profound effects. As Diaz Alejandro (1984) notes, *"the disastrous news from the rest of the world ... made policy-makers and informed opinion feel not only that local conditions were not so bad, after all, but also that no one knew, in Centre or Periphery, exactly what were the roots of the crisis nor how it could be overcome. After a terrible fright, this stimulated an almost exhilarated creativity. The old authorities and rules on economic policy were shattered. It was a time calling for reliance on one's discretion."*

In the center, the (de facto) standard was slower to disappear. The gold bloc persevered before finally crumbling away. And even those countries breaking their golden fetters seemed uncertain what to do with their new freedom, and reluctant to plunder the monetary policy armory to fight deflation (Simmons (1994)).[12] The switch to "neo-orthodox" policies of devaluation, tariffs and cartels in some and the rise of demand stimulation in other countries was slow, often interrupted, and, absent a coordinated

[11] In the broader British sphere of influence, the only country remaining on gold in 1932 was gold producer South Africa, which faced its share of troubles. As Frankel, writing two years later, notes: *"It is […] clear that by the end of 1931, quite apart from the immediate crisis resulting from the currency change in Great Britain, South Africa was faced with the urgent need of undertaking the fundamental readjustments necessitated by the fall in export prices, the decline in national income, the increase in the burden of debt, the prevalent unemployment, and the rigidity of the domestic price structure"* (Frankel (1933:98)).

[12] Japan and Sweden provide partial exceptions.

global expansionary policy, frequently took the form of beggar thy neighbor policies (Gourevitch (1984), Eichengreen (1992)).

Despite the rather feeble use of the monetary arsenal, countries shedding their golden fetters enjoyed economic recovery, while their brethren who remained tethered to gold found themselves mired in unremitting depression.[13] Combined with the adverse real exchange rate effects of devaluations elsewhere, the cost of maintaining the gold par rose as more countries exited: the positive network effects supporting broad adoption (Meissner (2005)) came into play on the downswing as well. With a delay, the experience of the escapees was not lost on those retaining their golden shackles: "*In the end, what led to that system's downfall was not just agitation on the left but the challenge to the hegemony of gold-standard ideology from the fact of economic and financial distress*." (Eichengreen and Temin (2000: 201)).

III Toward a Political Economy of Policy Making

> *"[M]onocausal explanations are unlikely to provide an adequate account of the endogeneity of exchange rate regimes"*
> Eichengreen (1995a)

The forces that undermined the interwar monetary system and eventually led to its collapse will remain a lively area of debate.[14] In this paper, we focus on one aspect of this debate: why and when countries decided to shed their golden fetters. By revealed preference, authorities thought it optimal to join the gold standard optimal at the entry

[13] See (Eichengreen and Sachs (1985), Campa (1990), Eichengreen (1992), Eichengreen and Temin (2000)).

[14] The vast size of the literature prevents adequate referencing; key contributions include Friedman and Schwartz (1963), Field (1984), Hamilton (1987), Temin (1989), Eichengreen (1992) and Bernanke (1983).

point but preferred departure at the exit point. The empirical challenge is to identify the variables that changed the perceived net benefit between the entry and exit point.

Economic historians have long emphasized a complex set of considerations affecting the exit decision. In departing, countries were not merely responding to global economic shocks within a given institutional framework. They were also breaking with long-standing norms and practices regarding economic policy, and did so in the midst of social and political turmoil. With this in mind, we propose a set of four general testable hypotheses relating to the timing of exit decisions across the center and periphery.

H_1: A high incidence of negative domestic and external economic shocks, monetary and real, hastened the departure of countries from the gold standard.

The real and monetary shocks in the late 1920s and early 1930s were central both to economic performance and policy responses (Bernanke and James (1991)). On the monetary side, the early orthodox response of restrictive monetary policy contributed to recession, rising unemployment and real debt burdens, creating pressure to detach from the system. Most primary-exporting countries in the periphery additionally experienced sharp deteriorations in their terms of trade, aggravating their debt problems at a time when capital in flows dwindled after 1929 (Corbo (1992)). Not surprisingly, currency and banking crises were a frequent occurrence. Faced with these varied challenges, exiting the system had clear advantages: it allowed authorities to pursue more expansionary policies, to use the lender-of-last resort functions to stabilize the financial system and – by devaluing – to assist the recovery of exports.

H_2: The "good housekeeping seal of approval" motive for credibility-challenged countries weakened as capital flows dwindled and center countries exited.

While offering relief from the external shocks and domestic contraction, exits were not costless. As Bordo, Edelstein and Rockoff (1999) have argued, for periphery countries and others suffering from credibility problems, adherence to the golden rule served as a good housekeeping seal of approval, facilitating access to international capital. Overtime, the weight of this motive may however weakened, initially in 1929 when the diminution of capital outflows from the United States reduced the payoff to perceived policy discipline; and terminally when Britain herself exited, reducing the credibility signal of adherence.[15] In some countries, reduced (external perceptions of (the benefits of)) commitment and its collateral damage to credibility were in turn reflected in (and aggravated by) a loss of reserves, a shrinking gold backing and widening yield spreads, tilting the balance further in favor of exiting the system (Eichengreen (2002)).

H_3: National and global attachment to gold (the mentality) as well as positive network effects prolonged duration; the erosion of the mentality hastened the collapse, accelerated by network effects.

As any near-global monetary regime, the interwar gold standard exhibited strong network effects, both through the credibility effect explored in the second hypothesis, and through the traditional trade links. As Meissner (2005) argues in the case of the 19th century gold standard, these network effects can play an important role in the adoption of a gold peg. The network effect however also operates on the downside. The 1931 exit of Austria, Germany and Britain not only undermined the seal of good housekeeping argument for belong to the club and struck a blow at the prevailing mentality, it also presented countries in the British economic sphere with a choice between remaining on gold and accepting a step real exchange rate appreciation, or exiting with Britain.

[15] See e.g. Diaz Alejandro (1984:22) "Peripheral shame and self-doubts gradually gave way to self-confidence, especially after Britain abandoned the gold standard in 1931 and Germany and the USA embarked on their own experiments."

The response of individual countries to systemic factors may have depended on their history. The circumstances motivating the adoption of the gold standard in the early 1920s – among them hyperinflation, budget deficits, exchange rate instability – were country specific. The extent to which authorities or electorates feared a return to these pre-adoption circumstances may have influenced their regime choices: ceteris paribus, adherence to a hard rule is likely more attractive to a country fearing a slide back into hyperinflation. Beyond the considerations motivating entry, the hold of the gold standard mentality on the decision makers is likely to have influenced the exit decision.[16]

H_4: Political instability and the extension of the franchise weakened the ability of countries to remain on gold while elevating employment to a policy goal rivaling the defense of the peg.

Starting with Keynes's contributions, domestic politics has figured prominently in debates on economic policy during the interwar period. Two linked themes are particularly prominent. First, the extension of the franchise and the rise of organized labor, coupled with a new theoretical focus on the potential of countercyclical policy - elevated full employment to a rival policy objective, challenging the unquestioned dominance defense of the peg held in the pre-war system (James (2001)). Second, political instability in various forms - extra-constitutional changes in government, riots and unrest, frequent turnover of constitutional governments as well as highly fragmented political systems - impeded durable policy commitments, including both the defense of

[16] See for instance Eichengreen and Temin (2000:185): "Our argument is that the mentality of the gold standard was integral to the ideology of […] those segments of society that controlled economic policies [….] The world economy did not begin to recover when these people changed their minds, rather, recovery began when mass politics in its various guises removed them from office." The Gold Standard and the Great Depression, Contemporary European History, 9, 2, 183-207, p. 185.

the peg and, at times, the creation of a consensus for exit (Simmons and Eichengreen (19965b).

As the preceding discussion illustrates, the researcher attempting to explore exits from the interwar gold standard if anything faces an embarrassment of riches. Each of our broad hypotheses can be formalized in a number of alternative ways. Furthermore, the importance of alternative factors may differ across country groups – for instance, the seal of approval argument is likely to be more pertinent to periphery than to center countries – two groups which themselves are not trivial to define. In the next section, we confront these challenges.

IV Exploring the Timing of Exit Decisions

Was the timing of departures driven mainly by domestic economic conditions? Did external factors and policy decisions play a role? What was the impact of history and dogma? How did domestic politics enter the picture?

We have learned much about the relative role of these factors from careful case studies, particularly for the center countries. More recently, the case studies have been fruitfully complemented by a comparative empirical literature – in particular, Simmons (1994) and recently Wandschneider (2005) - also primarily focusing on the center countries. Our paper falls into the latter tradition. We now confront our four hypotheses with the facts for a fairly comprehensive set, allowing us to assess whether findings for the center countries extend to the broader sample.

Data and Specification

Our goal is to explain the exit decision from the interwar gold standard. Specifically, when did the perceived net-benefit tilt in favor of departing from the system

and what variables account for this timing? We rely primarily on duration analysis, also used by Meisner (2005) and Wandschneider (2005). The dependent variable is the length of time a country remained on the interwar gold standard after it joined the system in the 1920s. This approach is designed to capture the impact of the explanatory variables on the transition out of one state to another – in our case out of the interwar gold standard (see Appendix 2).

A country enters the empirical analysis once it joins the system and drops from the analysis once it exits (based on the data in Appendix 1). Limited Data availability for the explanatory variables and the need to use lags to minimize the potential for endogeneity reduces the sample size, though for the basic regression we rely on an average of 38 countries and 202 country-years. Appendix 3 defines the list of explanatory variables, chosen to capture the thrust of the four hypotheses while ensuring maximum data coverage across the center and, more importantly, the non-European periphery countries.

We test hypothesis 1 - emphasizing the role of economic factors - by examining the explanatory power of the inflation rate, per capita output growth, the percentage change in the terms of trade and the level of capital exports from creditor nations. We explore the importance of credibility (hypothesis 2) by looking at the role of the end-year spread of the country's long-term government bond vis-à-vis the UK consol; the percentage change in gold reserves; the end-year ratio of gold reserves to currency and notes in circulation; and the percentage change in the dollar exchange rate of a country's currency within the gold band.

We examine the leadership and network effects (hypothesis 3) by including the number of countries on the gold standard in a given year and two dummy variables capturing, respectively, whether the UK has departed from the system and whether a country's major trading partners exited the system. The historical attachment is captured by including two dummy variables signifying whether the country had been a member of the classical gold standard and whether it experienced high-inflation before joining. Finally, to explore the role of political factors, we include controls for the level of extra-parliamentary political unrest, government instability, parliamentary fractionalization and democracy.

Basic Empirical Results

Tables 1-4 report the results for the four hypotheses. In each table, we first present results for the entire sample, and then split the sample into center and periphery countries. We add one or two variables at a time, beginning with the most widely available variable. While equation 3 is preferable on the grounds of not suffering from omitted variable bias, the inclusion of all variables generally reduces the number of observations. Table 5 combines the four hypotheses into a single specification, with goal of identifying the variables (hypotheses) that ultimately mattered in explaining the exit decision from the gold standard. Table 6 presents a probit regression as a robustness check.

The results presented in Table 1 provide support for the importance of economic performance. Higher inflation (read lower deflation) and faster growth (read milder recession) prolonged the duration, consistent with the view that the double challenge of deflation and recession (themselves linked) undermined the willingness to remain wedded to gold. Negative terms of trade shocks and the decline in international capital

flows significantly reduced the duration, consistent with the observation that external pressures on both the current and the capital accounts affected the cost-benefit calculus of remaining under gold. We find variation in the importance of the variables for center and periphery countries. For the former, output growth is more important whereas terms of trade shocks and deflation mattered more in the later. For both groups, however, capital flows – or the creditor/ debtor status- conditioned the timing of exit.

Table 2 turns the spotlight to credibility. The two included variables that capture credibility problems and hence the reduced benefits of adherence - a higher yield spread relative to the consol and exchange rate pressure[17] - shorten duration as expected. In contrast, an increase (or smaller decrease) in gold reserves which may be interpreted as signaling higher external confidence, lengthens duration. The coverage ratio does not affect duration significantly. These results differ markedly across the center and the periphery. The negative effect of the yield spread solely operates through the periphery countries. Similarly, while the change in gold reserves lengthens duration in both center and periphery, the effect is much stronger in the former. The only variable important for both groups is the exchange rate pressure. In sum, though credibility factors clearly affected the duration in the center and periphery, the impact appears weaker in the center.

Table 3 turns to the network and mentality effects. We start by asking whether membership in the classical gold standard or a history of high inflation prior to entry extended the life of the interwar standard. The answer is no and yes, with the latter result particularly pronounced for the center. As we will see below, this finding is however not

[17] As the variables are lagged one year, the exchange rate pressure measures the exchange rate movement relative to gold while the country operated under the standard; the rate, thus, captures whether the exchange rate moved closer to the gold point. This is one of the components used by Bordo and Eichengreen (2002) in the construction of their currency crisis indicator.

robust to the inclusion of other explanatory variables. The number of countries on gold – measuring both aspects - enters significantly with no apparent difference between center and periphery. The dummy capturing whether Britain had exited gold – a rough proxy for collateral damage to the gold mentality – reduces duration as predicted. Puzzlingly, the effect is stronger for the center countries. The direct trade effect – proxied by whether one of the two major trading partners has exited the standard, enters negatively. Splitting the sample reveals the effect to be true for both the center and periphery countries.

Table 4 turns to the role of politics. Political unrest, captured by the role of riots, strikes and demonstrations, contributes to an earlier demise of the gold standard. Government instability likewise reduces the duration of the gold standard. The first is driven by the center countries while the second is pronounced in the periphery. More democratic countries and those with more fractionalized parliaments remained longer under gold. Neither variable is significant if both are included, a result of the fact that many democracies tended to have more fractionalized parliaments during this time period. The effect of democracy, however, differs across our two groups. Indeed, the effect on the center is negative, as predicted, while for the periphery countries the effect is positive although in both cases it is insignificant when the sample is divided.[18]

Putting the Pieces Together

In Tables 1-4 we separately explored the support for the four hypotheses. We now draw them together. Doing so comes at the unavoidable cost of losing some observations but allows an inference on proxy effects in Tables 1-4. To minimize the loss of

[18] This may be due to the fact that democracies in the periphery were more fractionalized than in the center countries although for both groups the correlation between the level of democracy and parliamentary fractionalization is positive and strong.

observations, we drop some variables like the yield spread and the change in the terms of trade which are only available for a small subset of countries as well as the ratio of gold to currency which was never significant. High multicollinearity forces us to choose between democracy and the fractionalization and we opted for the former. Table 5 reports the results, adding one group of variables at a time. Rather than elaborating on each equation in turn, we focus the discussion on the most comprehensive equation.

Domestic economic performance remains highly significant even after the inclusion of other determinants. Higher inflation and stronger GDP growth are robustly associated with a longer duration, ceteris paribus, as are capital outflows. The size of the coefficients is overall close to those observed in Table 1, though inflation matters somewhat less and growth somewhat more. The credibility indicators enter significantly with the expected sign. Again, compared to column 2 of Table 2 (which is the most directly comparable as we exclude the yield spread here) the size of the coefficients on gold reserves does not change dramatically, though the positive impact of exchange pressure increases markedly.

The picture on path dependence and mentality is more mixed. Membership in the pre-war gold standard, the proxy for the national mentality which garnered mixed prominence in Table 3, now enters robustly. In contrast, a history of high inflation – that was highly significant in Table 4 - drops out, a consequence of the fact that these countries also experienced large exchange rate pressures. The findings on the global mentality effect are likewise mixed. While the exit of Britain enters highly significantly, the number of countries on gold has no significant relationship to duration. The network effect (the exit of a major trading partner) enters significantly. On the political side,

neither social or government instability is significantly related to duration, while higher level of democratization is associated with a longer duration.

Looking at the set of all variables, hypothesis 1 (economic variables) and 2 (credibility/confidence) find strong support, with results not altered dramatically compared to the individual examination in Tables 1 and 2. The path dependence and mentality hypothesis also finds some support, though some variables lose their significance once other controls are included. As a robustness check on these results and the duration methodology in general, Table 6 replicates the regressions in Table 5 using a probit regression. Following Klein and Marion (1997), the dependent variable is coded zero if a country operates on gold at the end of a year, and one if it exits during that year**.** We performed the analysis over the period 1925-1936.[19] As the exit year is coded as one, the null hypothesis is that the sign of the coefficients for the probit is reversed from the duration analysis. This is indeed largely the case; the conclusions from Table 5 carry over with a few exceptions.[20]

V Conclusions

In 1919, there was little disagreement among countries that a return to gold was the right policy option. Within a decade, membership in the interwar standard rivaled that in its classical antecedent. But while the latter system prospered for decades, by 1931 less than ten countries remained on gold. This dramatic reversal, coupled with the wrenching economic crises accompanying it, has stimulated a rich literature exploring the

[19] Like the duration data, a country drops out of the analysis once it exits.

[20] A robustness check using equal sized dataset largely confirms the results. Higher inflation higher capital inflows, less exchange rate (depreciation) pressure, membership in the pre-war gold standard reduce the exit probability, while the exit of the UK increases it.

linkages between the gold standard, monetary and fiscal policies, and the Great Depression. The gold standard over the years has been identified as a major culprit. If so, why were some countries willing to adhere until the bitter end while others showed little reluctance in withdrawing?

Drawing on the rich literature, this paper has explored four broad hypotheses to explain the timing of exit decisions from the standard. We find that all four hypotheses are supported by the data to some degree. Countries suffering more severely from deflation and recession, countries whose trading partners broke their shackles, and countries suffering a serious decline in external confidence were likely to exit earlier. Controlling for these economic factors, the role of political factors appears more muted: neither social unrest nor government instability seem to be robustly influential, though a high degree of party fractionalization associated with more democratic regimes enhanced the duration of the standard. In the final analysis, economic factors appear to be at the center of exit decisions.

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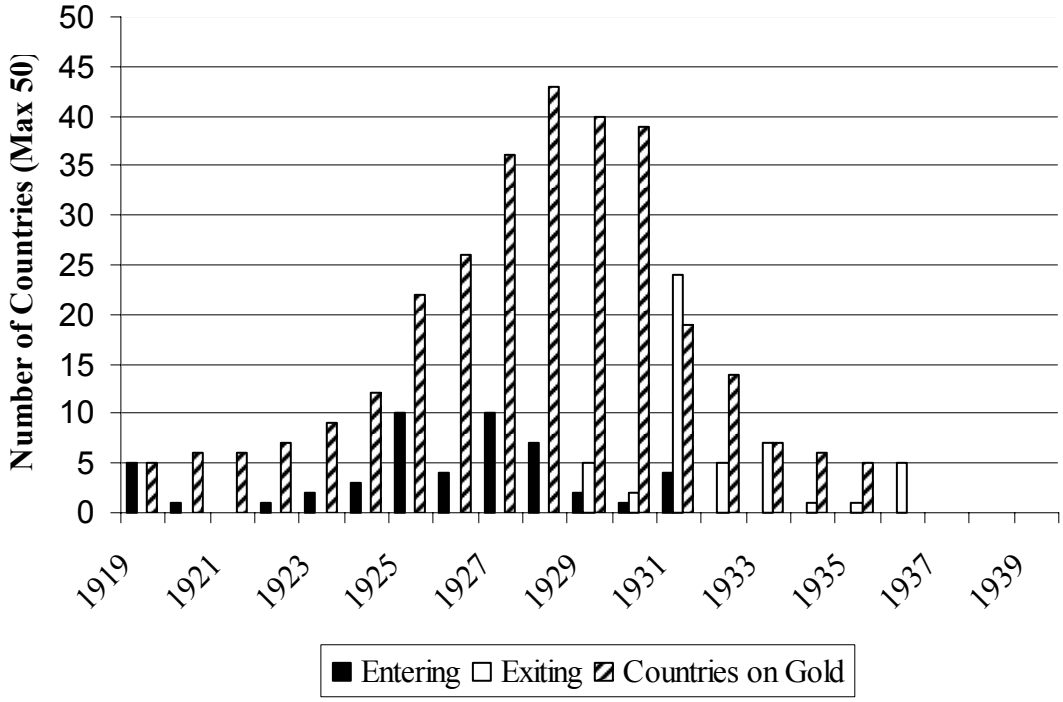
Figure 1
Entry and Exit From the Interwar Gold Standard



Source: Appendix Table 1

Table 1. Duration of Adherence and Economic Factors, 1919-1936

	Expected Sign	Full Sample			Center	Periphery
		(1)	(2)	(3)	(4)	(5)
Dependent variable:						
Inflation	+	8.172**	4.689**	3.902**	0.023	2.772*
		(1.997)	(1.655)	(0.935)	(0.708)	(1.662)
Output Growth	+	3.039**	4.963**	2.735**	9.412**	1.086
		(1.779)	(1.386)	(1.093)	(2.917)	(1.007)
Capital Exports	+	-	0.896**	0.946**	0.856**	1.082**
			(0.119)	(0.178)	(0.198)	(0.318)
Terms of Trade Change	+	-	-	2.969**	3.608	0.761
				(1.265)	(3.533)	(0.900)
Observations		231	221	153	67	86
Countries		38	29	29	12	17
Log-likelihood		-32.84	-22.11	-8.52	-2.17	-7.23
Wald chi2(1)		31.31	33.49	65.33	91.77	30.37

Robust standard errors in parentheses. ** and * indicate significance at the 5% and 10% level, respectively.

Table 2. Duration of Adherence and Credibility, 1919-1936

	Expected Sign	Full Sample			Center	Periphery
		(1)	(2)	(3)	(4)	(5)
Dependent variable:						
Change in Gold Reserves	+	1.118**	1.041*	2.412**	7.430**	1.039
		(0.544)	(0.539)	(1.074)	(1.888)	(1.162)
Ratio of Gold to Money Supply	+	0.047	-0.015	-	-	-
		(0.091)	(0.050)			
Exchange Rate Pressure	+	-	3.965**	5.703**	13.986**	4.922**
			(1.575)	(0.948)	(3.838)	(0.645)
Yield Spread	-	-	-	-0.162**	0.373	-0.020**
				(0.006)	(0.268)	(0.008)
Observations		218	218	132	65	67
Countries		37	37	23	9	14
Log-likelihood		-39.44	-35.98	-18.46	-2.08	-10.06
Wald chi2(1)		5.04	14.03	174.04	131.17	85.24

Robust standard errors in parentheses. ** and * indicate significance at the 5% and 10% level, respectively.

Table 3. Duration of Adherence, Networks and the Mentality, 1919-1936

	Expected Sign	Full Sample			Center	Periphery
		(1)	(2)	(3)	(4)	(5)
Dependent variable:						
Gold Membership Before 1914	+	0.183	0.641*	0.604	-	0.373
		(0.179)	(0.357)	(0.382)		(0.399)
High Inflation History	+	11.727**	14.474**	14.441**	14.959**	-
		(1.014)	(1.043)	(1.053)	(1.275)	
# Countries on Gold	+	-	0.059**	0.057**	0.060**	0.061**
			(0.008)	(0.013)	(0.021)	(0.015)
UK Exits Gold	-	-	-1.654**	-1.921**	-2.220**	-0.691
			(0.164)	(0.168)	(0.276)	(0.356)
Major Trade Partner Exists Gold	-	-	-	-1.330**	-1.122*	-1.229**
				(0.225)	(0.638)	(0.314)
Observations		238	238	238	101	137
Countries		38	38	38	12	26
Log-likelihood		-44.40	-32.28	-26.42	-6.99	-18.10
Wald chi2(1)		135.48	407.37	407.37	733.19	52.91

Robust standard errors in parentheses. ** and * indicate significance at the 5% and 10% level, respectively.

Table 4. Duration of Adherence, Instability and the Franchise, 1919-1936

	Expected Sign	Full Sample			Center	Periphery
		(1)	(2)	(3)	(4)	(5)
Dependent variable:						
Riots, Strikes and Demonstration	-	-0.115**	-0.095**	-0.076**	-0.109**	-0.043
		(0.0321)	(0.031)	(0.028)	(0.039)	(0.164)
Government Instability	-	-0.164**	-0.120	-0.133	-0.021	-0.251**
		(0.077)	(0.093)	(0.095)	(0.121)	(0.087)
Democratization	-	0.833**	0.704	-	-1.930	0.542
		(0.300)	(0.540)		(1.578)	(0.395)
Party Fractionalization	+	-	-0.565	1.169**	-	-
			(0.877)	(0.575)		
Observations		278	278	278	101	177
Countries		45	45	38	12	33
Log-likelihood		-46.62	-36.79	-37.39	-11.36	-34.11
Wald chi2(1)		21.63	15.73	11.32	69.08	13.39

Robust standard errors in parentheses. ** and * indicate significance at the 5% and 10% level, respectively.

Table 5. Duration Analysis of Adherence Across Hypotheses, 1919-1936

	Full Sample				
	(1)	(2)	(3)	(4)	(5)
Dependent variable:					
Inflation	4.689**	3.754**	4.520**	3.919**	2.789**
	(1.655)	(1.211)	(1.302)	(1.336)	(1.187)
Output Growth	4.963**	4.589**	3.384**	3.421**	3.809**
	(1.386)	(1.566)	(1.416)	(1.389)	(1.694)
Capital Outflows	0.896**	0.807**	0.867**	0.914**	0.887**
	(0.119)	(0.118)	(0.121)	(0.262)	(0.140)
Change in Gold Reserves	-	0.673**	0.793**	0.844**	0.956**
		(0.330)	(0.333)	(0.337)	(0.328)
Exchange Rate Pressure	-	2.726**	2.932**	2.360**	2.530*
		(1.018)	(1.047)	(0.932)	(1.508)
Gold Membership by 1914	-	-	0.946**	0.917**	0.968**
			(0.365)	(0.392)	(0.386)
High Inflation History	-	-	0.105	-	-
			(12.343)		
# Countries on Gold	-	-	-	-0.006	-
				(0.030)	
UK Exits Gold	-	-	-	-0.684**	-0.960**
				(0.174)	(0.238)
Major Trade Partner Exists	-	-	-	-0.463*	-0.499**
				(0.263)	(0.272)
Riots, Strikes and Demonstration	-	-	-	-	0.009
					(0.047)
Government Instability	-	-	-	-	0.048
					(0.093)
Democratization	-	-	-	-	0.874**
					(0.408)
Observations	221	200	200	200	192
Countries	37	34	34	34	33
Log-likelihood	-68.48	-32.84	-10.92	-10.13	-9.15
Wald chi2(1)	13.67	104.17	291.54	91.26	129.18

Robust standard errors in parentheses. ** and * indicate significance at the 5% and 10% level, respectively.

Table 6. Probit Analysis of Adherence Across Hypotheses, 1919-1936

	Full Sample				
	(1)	(2)	(3)	(4)	(6)
Dependent variable:					
Inflation	-5.125**	-4.996**	-5.405**	-5.340**	-5.551**
	(1.738)	(1.778)	(1.822)	(2.038)	(2.010)
Output Growth	-2.394	-1.917	-1.255	-0.095	-1.299
	(1.731)	(1.882)	(1.729)	(1.666)	(1.791)
Capital Outflows	-0.629**	-0.678**	-0.739**	-0.722**	-0.616**
	(0.123)	(0.133)	(0.148)	(0.261)	(0.138)
Change in Gold Reserves	-	-0.701**	-0.779	-0.835**	-1.105**
		(0.352)	(0.362)	(0.357)	(0.422)
Exchange Rate Pressure	-	-3.423**	-3.470**	-2.286*	-2.467**
		(1.440)	(1.499)	(1.577)	(1.682)
Gold Membership by 1914	-	-	-0.850**	-0.777**	-0.923
			(0.367)	(0.381)	(0.395)
High Inflation History	-	-	-	-	-
# Countries on Gold	-	-	-	0.012	-
				(0.022)	
UK Exits Gold	-	-	-	1.045**	0.809**
				(0.443)	(0.323)
Major Trade Partner Exists	-	-	-	-0.429	-
				(0.484)	
Riots, Strikes and Demonstration	-	-	-	-	-0.068
					(0.871)
Government Instability	-	-	-	-	-0.172
					(0.118)
Democratization	-	-	-	-	-0.007
					(0.363)
Observations	220	200	200	200	193
Countries	38	38	38	38	38
Pseudo R^2	0.332	0.365	0.388	0.423	0.425
Wald chi2(1)	45.16	55.26	54.13	62.60	63.94

Robust standard errors in parentheses. ** and * indicate significance at the 5% and 10% level, respectively.

Appendix 1

Entry and Exit from the Interwar Gold Standard

The dependent variable in our empirical analysis is the length of time a country adhered to the interwar gold standard, measured in years. We must thus specify the dates of entry and of exit from the system. While this might seem straightforward, it is not in this instance. As Obstfeld and Taylor (2004) note, the coding of these dates for the interwar gold standard involves a degree of "greater subjective judgment".

Problems arise on both sides. To set the entry date, we have to choose between the time of de facto stabilization under a fixed rate with full convertibility or a de jure adoption – which in some countries never came (Officer (2001)). Similarly, on the exit side, a choice arises between de jure exits and the adoptions of policies – such as controls on convertibility or a devaluation – that violate "the rules of the game".

Fortunately we are able to rely on the exhaustive work undertaken by Kemmerer (1954) for fifty-four countries. Although he does not discuss his criteria in any detail, his coding - with a few exceptions - is consistent with information published by the *League of Nations* on major decisions affecting the gold standard as well as Officer's (2001) more recent compilation of dates for an even larger sample relying on multiple sources including Kemmerer.

We code a country as leaving the gold standard in a given year if either it officially suspended the gold standard or depreciated the value of the currency during that year. In most cases, countries did both sequentially and, in many, these actions occurred with or were followed soon after by the imposition of exchange control. If the decisions occurred in subsequent years, we code the earlier year as the exit year.

For six countries in the periphery – Brazil, Chile, Honduras, New Zealand, South Africa and Uruguay - Kemmerer's dating is not consistent with this rule. For these cases or when Kemmerer does not provide exit dates, we followed the coding by Officer (2001) which is also consistent with information provided by the *League of Nations*. Other small discrepancies between Kemmerer and Officer appear to be due to the treatment of intra-year changes: Kemmerer considered a country as being on the gold standard in a given year if it remained on gold for up to six months, while we code countries as being as entering or leaving the standard if they change the criteria any time during the year. As a robustness test, we also use an alternative coding that drops the years of entry and exit, thus only counting years completely spend on the gold standard.

Before describing the data in more detail, it is worth emphasizing areas we do *not* address. First, we do not distinguish between *de jure* and *de facto* adoption of the gold standard, nor between countries on a gold, a gold-coin or gold-exchange standard. We thus do not address the quality of adherence to the interwar compared to the classical gold standard. Second, we also do not formally model the adoption decisions, though some of the control variables we use – such as whether the country had operated under

the classical gold standard or whether it suffered a hyperinflation – may have influenced exchange rate choices.[21]

Rather, our sole focus is on the decision to sever policy attachment to the system, particularly for the under-researched group of periphery countries. With these considerations in mind, Table A.1 presents the entry and exit dates for 50 countries on the interwar gold standard. Trivially, countries that never joined the system (such as Russia) are excluded. Since we are concerned with the duration of membership in the system, our analysis time begins in 1919 and ends in 1936 when the last countries exited

[21] We explore the entry decision in a companion paper.

Table A. 1 Adherence of 50 Countries to the Interwar Gold Standard

	Entry and Exit from the Gold Standard			Dates of Measures Affecting Exit		
	Starting Date	**Ending Date**		**Suspension of Gold Standard**	**Imposition of Exchange Control**	**Depreciation Relative to Gold**
	Kemmerer (1954)	Kemmerer (1954)	Officer (2001)	League of Nations (1933-36)		
Argentina	1927	**1929**	1929	Dec-29	Oct-31	Nov-29
Australia	1925	**1929**	1930	Dec-29	---	Mar-30
Austria	1923	**1931**	1931	Apr-33	Oct-31	Sep-31
Belgium	1925	**1935**	1935	Mar-35	Mar-35	Mar-35
Bolivia	1928	**1931**	1931	Sep-31	Oct-31	Mar-30
Brazil	1927	1930	**1929**	---	May-31	Dec-29
Bulgaria	1927	**1931**	1931	---	---	---
Canada	1926	**1931**	1929	Oct-31	---	Sep-31
Chile	1926	1932	**1931**	Apr-32	Jul-31	Apr-32
Colombia	1923	**1931**	1932	Sep-31	Sep-31	Jan-32
Costa Rica	1922	**1932**	1932	-----	Jan-32	Jan-32
Cuba	1919	**1933**	---	Nov-33	Jun-34	Apr-33
Czechoslovakia	1926	**1931**	1931		Oct-31	Feb-34
Denmark	1927	**1931**	1931	Sep-31	Nov-31	Sep-31
Ecuador	1927	**1932**	1932	Feb-32	May-32	Jun-32
Egypt	1925	**1931**	1931	Sep-31	---	Sep-31
El Salvador	1920	**1931**	1931	Oct-31	Aug-33	Oct-31
Estonia	1928	**1931**	1931	Jun-33	Nov-31	Jun-33
Finland	1926	**1931**	1931	Oct-31	---	Oct-31
France	1928	**1936**	1936	---	---	Sep-36
Germany	1924	**1931**	1931	---	Jul-31	---
Greece	1928	**1931**	1932	Apr-32	Sep-31	Apr-32
Guatemala	1924	**1933**	1933	---	---	Apr-33
Honduras	1931	1934	**1933**	---	Mar-34	Apr-33
Hungary	1925	**1931**	1931	---	Jul-31	---
India	1927	**1931**	1931	Sep-31	---	Sep-31
Indonesia	1925	**1936**	1936	Sep-36	---	Sep-36
Italy	1927	**1934**	1934	---	May-34	Mar-34
Japan	1930	**1931**	1931	Dec-31	Jul-32	Dec-31
Mexico	1925	**1931**	1931	Jul-31	---	Aug-31
Netherlands	1925	**1936**	1936	Sep-36	---	Sep-36
New Zealand	1929	1931	**1930**	Sep-31	---	Apr-30
Nicaragua	1919	**1931**	1932	Nov-31	Nov-31	Jan-32
Norway	1928	**1931**	1931	Sep-31	---	Sep-31

Table A. 1 cont. Adherence of 50 Countries to the Interwar Gold Standard

	Entry and Exit from the Gold Standard			Dates of Measures Affecting Exit		
	Starting Date	**Ending Date**		**Suspension of Gold Standard**	**Imposition of Exchange Control**	**Depreciation Relative to Gold**
	Kemmerer (1954)	Kemmerer (1954)	Officer (2001)	League of Nations (1933-36)		
Panama	1919	**1933**	----	---	---	Apr-33
Paraguay	1927	----	**1929**	---	Aug-32	Nov-29
Peru	1931	**1932**	1932	May-32	---	May-32
Philippines	1919	**1933**	1933	---	---	Apr-33
Poland	1927	**1936**	1936	---	Apr-36	1936
Portugal	----	----	**1931**	Dec-31	Oct-22	Oct-31
Romania	1929	**1932**	1932	---	May-32	Jul-35
Siam	1928	**1932**	1932	May-32	---	Jun-32
South Africa	1925	1931	**1933**	Dec-32	Jan-33	---
Sweden	1924	**1931**	1931	Sep-31	---	Sep-31
Switzerland	1925	**1936**	1936	---	---	Sep-36
U.K.	1925	**1931**	1931	Sep-31	---	Sep-31
United States	1919	**1933**	1933	Apr-33	Mar-33	Apr-33
Uruguay	1928	1932	**1929**	Dec-29	Sep-31	Apr-29
Venezuela	1927	**1930**	1930	---	Dec-36	Sep-30
Yugoslavia	1931	**1931**	---	---	Oct-31	Jul-32

In cases where (a) the exit date provided by Kemmerer (1954) differs from the coding rule we follow or in which (b) Kemmerer (1954) does not provide an exit date, we code the exit according to Officer (2001). These years are given in boldface.

Appendix 2

Duration Analysis of Adherence to the Gold Standard

We employ duration or survival analysis to investigate adherence to the interwar gold standard. Specifically, we model the probability of exit from the system for countries that had joined before or after 1919, on the basis of the covariates identified in the paper. The empirical strategy in essence closely resembles that used by Messiner (2003) to examine the diffusion of the Classical Gold Standard and is also used in Wandschneider (2005).

The methodology bears some similarity to standard probit regressions used to examine the determinants of exchange rate regimes as in Edwards (1997) and Levy-Yeyati, Sturzenegger and Reggio (2002) or the duration of pegs as in Klein and Marion (1997) and Stein and Streb (2004). Our focus is however not so much whether a country was on gold or on a different standard in a specific year (for which probit would be most appropriate) but rather the decision of how long to remain on gold after its broad spread adoption in the mid 1920s.

Like standard regression analysis, the empirical technique involves the estimation of coefficients of covariates through maximum likelihood. The likelihood function exploits information on all countries on the system to ascertain the effects of covariates on the probability of transition out of the system. All the results reported in the paper are based on modeling the effects of covariates using an exponential distribution although we obtain similar results with other parametric or semi-parametric distributions.[22]

We also specify an accelerated failure-time model that expresses the survival time (adherence to the gold standard in our case) as a linear function of the covariates. This does not alter the model but provides the convenience of interpreting all the results reported in Tables 1-6 as the effects of covariates on the adherence to (survival of) the gold standard. Although not reported, all regressions results in the tables include a constant and 3-year time dummies.

[22] The exponential distribution imposes the restriction that the probability of exit does not depend on time. A direct test of this assumption indicates that is not unreasonable for the entire period under study, 1919-1936.

Appendix 3

Variable Definitions

The database covers the period 1919-1936. The 12 core/center countries include Australia, Belgium, Canada, Denmark, France, Germany, Netherlands, New Zealand, Sweden, Switzerland, the UK and the US. The rest are coded as periphery countries.

Inflation: Average annual change in the consumer price index in the previous three years, transformed using ($\pi/1+\pi$). Data are taken from Obstfeld and Taylor (2003) supplemented by Mitchell (2003a-c) and The Oxford Latin American Economic History Database (2005).

Output Growth: average annual change in real per capita GDP in the previous three years. Data are taken from Obstfeld and Taylor (2003) supplemented by Blattman, Hwang and Williamson (2003) and Maddison (2003).

Terms of Trade Shock: average annual change in the terms of trade in the previous three years. Data are taken from Obstfeld and Taylor (2003) supplemented by Blattman, Hwang and Williamson (2003) and The Oxford Latin American Economic History Database (2005).

Capital Exports: net global capital exports in millions of US dollars from creditor nations in the world as calculated by Feinstein and Watson (1994) for the period 1924-1935.

Yield Spread: a measure of country risk calculated by the spread of a country's long-term bond-yield versus London, measured in percentage points per annum. Data are taken from Obstfeld and Taylor (2003)

Change in Gold Reserves: annual percentage change in end-year gold reserves in US dollars. Data are taken from League of Nations (1922-38).

Ratio of Gold to Money Supply: ratio of gold reserves to money supply (in logs), both measured in local currency. Gold reserves are as above and converted using the exchange rates as below. Money supply is estimated by notes in circulation and taken from Mitchell (2003a-c).

Exchange Rate Pressure: annual percentage change in the end-year exchange rate versus the US dollar, transformed using ($\pi/1+\pi$). Data are taken from League of Nations (1922-38). This variable is measured so that an increase is an appreciation of the local currency versus the US dollar.

Gold Membership by 1914: a dummy variable indicating whether the country had been a member of the Classical Gold Standard before the outbreak of WWI. Data are taken from Kemmerer (1954) and Meissner (2005)

History of High Inflation: a dummy variable indicating whether a country experienced high inflation before joining the Interwar gold standard, defined as inflation in excess of 50 percent in any year between 1919 and the date of entry.

Number of Countries on Gold: number of countries on the interwar gold standard for a given year, weighted by the size of their respective economies. The weight is the level of real per capita GDP as above.

UK Exits Gold: a dummy variable indicating whether the UK departed from the Interwar gold standard.

Major Trading Partner Exits Gold: a dummy variable indicating whether a country's major trading partner (up to two) had left the Interwar gold standard. Data are taken from Mitchell (2003a-c).

Riots, Strikes and Demonstrations: a summary of the number of strikes, riots and anti-government demonstrations in a given year, calculated using principle components analysis. The underlying series correspond, respectively, to the variables s17f2, s18f1 and s17f6 in Banks (1971).

Government Instability: the number of times a new premier or 50 percent of the cabinet posts are occupied by new ministers in a given year. The variable corresponds to the field s22f2 in Banks (1971).

Democracy: the annual level of democracy as measured by the Polity (1998) database. The variable is a composite index of democracy and autocracy, ranging -10 (most autocratic) to 10 (most democratic). The variable is transformed to range from 0 to 1.

Party Fractionalization: the number of seats in the legislature (lower house) divided by the number of seats held by the largest party. The variable corresponds to field s19f7 in Banks (1971).