Getting the Story Right: How You Should Choose Between Different Interpretations of the European Crisis (And Why You Should Care)



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ABSTRACT

Various complementary rather than competing explanations are given for the current economic predicament of the EU, particularly that of the Eurozone; a design flaw in the construction of the euro as a single currency; wasteful government expenditure and excessive borrowing; households living beyond their means; and a loss of confidence by market participants - banks and other major financial institutions - who liquidated their investments and retreated within their national boundaries. As a result, policymakers have initiated policy changes on multiple fronts, depending on the favoured narrative, with indifferent outcomes. This article argues that a financial interpretation of the crisis, one that emphasises the importance of the sudden outflow from a country's banks and sovereign debt markets - the so-called sudden stop - offers the promise of two alternative and more effective policy responses The first option is to renationalise finance by restraining the growth of household leverage, placing brakes on asset price growth in real estate markets, limiting the dimensions of domestic financial institutions to a size that can be resolved without straining national resources, and discouraging excessive cross-border exposure to wholesale markets or currency mismatches. Alternatively policymakers can aim at stabilising cross-border financial integration by creating a banking union, a capital markets union and ultimately a Eurobond.

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By Erik Jones

The European crisis is over-determined. Although most observers agree that the initial shock emanated from the United States, they tend to divide across at least four different narratives to explain why European countries suffered as much as they have since 2007. There was a design flaw in the construction of the euro as a single currency. Governments wasted money and borrowed excessively. Households lived beyond their means. And market participants – meaning banks and other major financial institutions – got startled, lost confidence, liquidated their investments, and retreated within their national boundaries.

Worse, the various explanations for the crisis are complementary rather than competing. The truth of any one story does not contradict any other; indeed, they are reinforcing. The euro made it too easy for governments and households to behave irresponsibly. The symptoms of that financial irresponsibility frightened investors. And the disintegration of European financial markets exposed the deep design flaws in the euro. It does not matter where the story begins because the effects are cumulative and everything causes everything.

This over-determination is a problem for analysis. When everything causes everything, it is too easy to find confirmatory data for any part of the story and so to stop data collection prematurely. It is also too easy to gloss over differences between country cases, to exclude cases arbitrarily, and to overlook anomalies. By the same token, it is difficult to distinguish between causes and effects, to recognize where mechanisms start and where they finish, and to assess the relative strength of different influences.

The policy response is underpowered as a result of disagreement among analysts. While the causal mechanisms may be mutually reinforcing, the relevant responses compete for political attention. Politicians are prone to focus on their preferred solution – say fiscal austerity or household deleveraging – rather than weigh an alternative approach. The distribution of adjustment costs only reinforces any divisions. The policy that shunts the burdens of adjustment elsewhere is often also seemingly the most logical to adopt. And at times the policy responses are contradictory and counterproductive. It is hard to encourage households to pay down their debts, for example, when the government is raising taxes and lowering expenditures; and, it is hard to grow the economy when both the private- and the public-sector are cutting back. The temporal frames are conflicting as well. Some policies, like monetary policy, are quick to agree upon but slow to have effect; others, like fiscal policy, are harder to accept but quicker to impact. This contrast makes it easier to rely excessively on monetary instruments than to strive for an appropriate macroeconomic policy mix.

This disagreement creates the impression that European policymakers are muddling through rather than acting decisively. They have initiated policy changes on multiple fronts and yet failed to gain much traction in finding an effective solution. Along the way, mistakes have happened like the near exit of Cyprus from the euro, key actors like the European Central Bank have run out of room for maneuver, and structural damage in the form of widespread bankruptcies and long-term unemployment has accumulated. European growth potential is diminished as a consequence and the risks of secular stagnation have increased.

This paper argues that a financial interpretation of the crisis deserves policy priority. The claim is not that this interpretation offers the 'one true narrative'; rather it is that a financial explanation promises to yield the greatest influence over events. Once European politicians have forged a coherent response to their financial challenges, they can afford to give attention to less pressing considerations.

The argument is made in four sections. The first sketches a technique for choosing between competing explanations based on 'causal depth' and 'fair causal comparison'. The second explores the depth of different narratives in terms of necessity, sufficiency, and sequencing. The third elaborates and compares a set of standard causal patterns. The fourth outlines competing policy agendas that give priority to finance and explains why they are so difficult to implement.

A Strategy for Choice

European policymakers are hardly unique in facing a problem of over-determination. Most crises have more than one cause and many of the mechanisms at work are tangled together. Hence, methodologists have developed techniques or strategies for untying the causal knots. The strategy sketched here is based on Richard Miller's (1988) Fact and Method.

Miller's approach is 'post-positivist' in the sense that he does not rely on covering-law type explanations like the 'law of gravity' or the 'law of one price'; each event is unique in terms of any number of contextual factors and many causal mechanisms only operate 'sometimes' and depending upon the circumstances. The uncertainty this entails is likely to generate discomfort in many policy circles. Nevertheless Miller's approach is realistic both in the conventional meaning of the term and in the sense attributed to Karl Popper's (2002) philosophy of science.

Miller offers three elements that will be more reassuring. First, he places causality at the center of explanation; to understand a thing, you have to know what brought it into being. Such explanations look like correlations – if A, then B – but they may only work once, under the unique circumstance of the case at hand. Second, he offers some simple rules for recognizing the 'depth' or significance of the correlations that are the building blocks of causal mechanisms. These rules are similar to the falsifying tests at the heart of Popper's scientific realism, but the goal of applying the rules is to qualify rather than eliminate a possible explanation. Third, Miller provides a technique for comparing and so 'confirming' causal mechanisms – called 'fair causal comparison'. Here too, Miller departs somewhat from Popper insofar as he focuses attention not on the replacement of one explanation with another, but rather upon the merits of an explanation relative to its nearest rivals¹

These three elements can be combined in a two-step strategy for untangling an over-determined situation. The first step is to focus on the most obvious correlations in order to see which is likely to have the greatest causal significance using the rules for causal depth – necessity, sufficiency, and priority. A necessary correlation occurs in all cases; a sufficient correlation always results in the same effect (which may also arise independently); and a prior correlation can give rise to a variety of symptoms which should be discounted in terms of their own causal significance.

The second step is to link the most relevant correlations together into standard causal patterns or mechanisms. These patterns link correlations of different kinds into narratives that describe how the event came about. These narratives compete insofar as they assign different roles to any observed correlations – sorting out necessity and sufficiency as well as

¹ The contrast here is with what Imre Lakatos(1970) describes as "methodological falsificationism".

cause and effect. Hence what matters is the structure of the argument, meaning how it starts, progresses, and ends.

An explanation is superior to its closest rival when the narrative or causal pattern helps us to understand the greatest scope of the event with the least complexity. This implies a trade-off along Occam's razor, where the simplest explanation is preferred when all things are equal and yet a more complicated explanation can be warranted when the increase in complexity is more than offset by the greater scope it has to offer on the event. In other words, the better explanation is neither the simplest nor the most complete; it is the explanation that offers the most leverage.

The standard for 'leverage' is not solely analytical. The best explanation does not have to be the one that offers the greatest understanding; instead it may be the explanation that offers the best prospects for control. This is where members of the policy community are likely to be more comfortable with Miller's strategy for dealing with over-determination; he offers them a technique for maximizing the effectiveness of any policy intervention.

Three Tests for Causal Depth

Correlation is not causation, but causation is a kind of correlation. This correlation happens over time – meaning first one thing, then another; it is preceded and followed by other events; and it may never be repeated. Moreover, to the extent to which there is a material connection between the one thing and the other, that mechanism is going to be difficult if not impossible to observe directly. We can get closer and closer to the actual connection, and so peel off layer upon layer of observed correlations, but we are unlikely to get all the way down to the bottom. That is the problem that logicians refer to as 'infinite regression' and it implies that we are going to have to stop the analysis somewhere and accept that level of observed correlation as sufficient (Toulmin 2003). The challenge is to find the right depth. That is why Miller (1988) proposes a few simple rules to guide analysis. He focuses on 'necessity' and 'priority' in *Fact and Method*; I have added 'sufficiency' as a third rule implicit in his argument.

These three measures of causal depth make it possible to start sorting out the correlations observed in the recent European crisis. The building blocks for the different explanations are euro membership, government borrowing, household balances, and investor or market confidence. And the relevant questions are whether these things were present in each of the countries that were affected by the crisis (necessity), whether countries were affected by the crises whenever these things were present (sufficiency), whether these things emerged before or after the crisis had effect, and whether there is some other factor that could be responsible for both sides of the correlation (priority).

None of the building blocks used in the predominant explanations for the European crisis is necessary for a country to get into trouble. Great Britain, Iceland, Hungary and Latvia all experienced profound effects of the crisis without being members of the euro area. Moreover, these countries have very little in common in terms of exchange rate policy or relative size and importance of the national currency. Neither Ireland nor Spain had excessive government borrowing before the crisis; the ratio of public debt to gross domestic product (GDP) in Portugal was somewhat higher, and yet not much different from France or Germany.² As for leverage, households in Italy and Greece were not hugely indebted. The

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² Unless noted otherwise, references to comparative data are drawn from the Annnual Macroeconomic Database (AMECO) of the European Commission, which is available on-line at http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm. The data code for debt to GDP ratios is UDGGL. In 2007, Portugal's debt to GDP ratio was 68.4 precent, France's was 64.2 percent, and Germany's was 63.5 percent.

ratio of household debt to disposable income increased in both countries in the decade prior to the crisis, but it remained low relative to other countries; this is even truer for the ratio of household debts to assets.³ Market confidence is harder to assess because of the dangers of tautology linking crisis and confidence. A sudden drop in confidence will trigger a crisis but a crisis will also trigger a sudden drop in confidence. Hence this correlation is always likely to be present and must be sorted out in terms of sequencing or priority rather than necessity in assessing its causal depth.

None of the obvious correlations were sufficient to ensure the onset of a crisis either. Countries like Luxembourg and Malta belonged to the euro area without suffering unduly as a consequence. Belgium managed to avoid close scrutiny for its high public debt burdens. There was a time when the markets clearly worried about the failure of Belgian politicians to form a government, but that concern abated once Elio Di Rupo announced his coalition and despite the continued pressure on public finances. Meanwhile, the two European countries with the highest ratios of household leverage – Denmark and the Netherlands – managed to escape some of the worst of the crisis. The Danish government was forced to defend its pegged exchange rate with the euro and the Dutch government had to stabilize both its failing financial system and its overextended real estate markets. Neither country emerged from the crisis unscathed. But they were hardly affected in proportion to the high level of household borrowing. Finally, the Belgian case shows that it is possible to experience a loss of market confidence and yet still escape the worst impact of the crisis. Successive Vienna Initiatives to stabilize financial markets in Central and Eastern Europe illustrate a more general dynamic within which a loss of investor confidence can be managed (Epstein 2014).

The question of priority is complicated because it implies a more precise definition of 'the crisis' in order to establish both sequencing and the influence of common factors. We can narrow the crisis down to balance of payments financing without having to revisit the tests for necessity or sufficiency above. Those tests work as well with this narrower definition as with a broader sense of the crisis as a combination of economic problems. Moreover, by focusing on the balance of payments we can isolate a precise temporal landmark while at the same time creating a break in the cumulative causal chain described in the introduction.

The question of priority also requires greater precision in how we look at the correlations. Consider the problem of euro membership. The challenge is to transform a design flaw in the euro into an appropriate trigger for a crisis in the balance of payments. Changing from non-member to member is unlikely to be adequate, because virtually all of the membership decisions took place long before the crisis. Therefore, we need an intermediate correlation. The most obvious would be an increase in a country's current account deficit. The argument would be that membership gradually eroded the international competitiveness of some participating countries while at the same time preventing them from using the nominal exchange rate to facilitate adjustment. At some point, market participants will question the sustainability of accumulated net foreign liabilities. Hence, the relevant question to ask is whether current account deficits increased or decreased prior to sudden capital outflows from banks or sovereign debt markets.

The need for greater precision also applies to government borrowing and household balances. Under normal circumstances, these are relatively slow moving variables and so the level of indebtedness and government borrowing tends to look much the same from one period to the next. The focus for attention, therefore, should not be on the levels but on any

³ This data is taken from the OECD and is available on-line at http://www.oecd.org/std/fin-stats/. The trend analysis refers primarily to Italy; the data for Greece is a point level for 2007.

⁴ This point would be explored in greater detail below. The data for market pressure are the spread on long-term sovereign debt yields between Belgium and Germany. I have based my analysis on daily market data for bid-yields provided by IHS Global Insight. As that is a proprietary database, I do not include a URL.

changes. Specifically, it is worth looking to see whether a sudden increase in borrowing by either governments or households precedes a balance of payments crisis.

Finally, it is worth considering whether the analysis should be reversed. In this case, the question is whether whatever is happening in the balance of payments will undermine international competitiveness, government borrowing, or household finances.

The sequencing of events varies considerably from one place to the next. Moreover, the pattern is often counter-intuitive. For example, Ireland experienced sudden shortfalls in its balance of payments (as measured by Ireland's position in the real-time gross settlement system used by euro area central banks – called TARGET2) against a backdrop of shrinking current account deficits (2008) and rising current account surpluses (2010). Greece experienced a balance of payments shortfall when the Greek government announced a small upward revision in the size of its deficit in October 2008 but not at all when successive Greek governments announced much larger upward revisions in October 2009; capital flowed out of the country during the first instance and into the country during the second (Merler and Pisani-Ferry 2012). The Italian government experienced its balance of payments crisis in July 2011 even as it agreed to a new fiscal adjustment program; meanwhile, Italian household borrowing actually contracted.

In order to show how a balance of payments crisis impacts on other domestic variables, it is useful to focus on the sudden outflow of capital from a country's banks or sovereign debt markets. The shock of such an outflow to interest rates and credit availability had an impact on international competitiveness because it raised the cost and cut the supply of working capital. The sudden capital outflow also raised government outlays on debt servicing and welfare assistance while lowering revenues accrued from income or value-added. For their part, households found it difficult to make ends meet and while many tried to restrict new borrowing (or found themselves cut off from access to new credit), they also struggled to pay down existing debt; the result was that household leverage increased.

This sequencing suggests that any causal account should center on a sudden flight of capital from a country's banks and sovereign debt markets. It also suggests that some prior influence – like the U.S. financial crisis – will have greater causal significance than any correlations with euro membership, competitiveness, government borrowing, or household debt levels. However, in order to translate that suggestion into an argument, it is necessary to flesh out competing narratives as causal patterns and to see which offers the most leverage in understanding and dealing with the crisis.

Fair Causal Comparison

The four competing parra

The four competing narratives are easy to sketch. Moreover, they each contain many of the same elements. Where they differ is in the ordering and importance assigned to different correlations. They also differ in terms of their logical entailments about the sequence in which different correlations appear.

We can start with a financial pattern that centers on a sudden flight of capital. This financial interpretation of the crisis is called a 'sudden stop' in development economics and it is familiar to anyone who studies balance of payments crises (Calvo 1998). The standard account begins with some kind of capital account liberalization resulting in a gradual increase in cross-border capital inflows. The capital that flows into the country accumulates as a stock of net foreign liabilities (seen from a domestic perspective). Then there is a shock

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⁵ The data for Target2 balances is available on-line at http://www.eurocrisismonitor.com/. The data for current account balances is from AMECO. The relevant code is UBCA.

⁶ The ratio of Italian household debt to gross disposable income was 83.3 percent in 2010 and 82.9 percent in 2011; the same ratio in Denmark was 300.2 in 2010 and 297.8 in 2011. Again, these data are from the OECD.

to the confidence of foreign investors who seek to liquidate and repatriate their assets. The liquidation of assets depresses domestic asset prices and stresses the balance sheets of domestic banks; the repatriation of capital triggers a balance of payments crisis. Firm, household and government finances are all damaged in the wake of the capital outflow.

The 'sudden stop' has few contextual requirements. It can take place under any exchange rate regime. It does not require a particular kind of banking system or configuration of asset markets. There is no necessary accumulation of government or household indebtedness. It does not require that the country experience a current account deficit or savings-investment imbalance prior to the crisis. And there is no need to specify what causes the shock to confidence. All that matters is that foreigners are able to stockpile assets after the liberalization of capital markets that they can liquidate and repatriate once their confidence is lost.

The 'competitiveness' story is the easiest to treat next because many of the elements were presented above as a way of operationalizing euro membership in the context of the balance of payments. To make the story comparable, however, it is useful to anchor the causal pattern with the same correlation used in the sudden stop account by starting with capital market liberalization and ending with a balance of payments crisis. The liberalization of capital flows make it possible for domestic resident to gain access to foreign credit, either directly or indirectly. They use this access to increase consumption of both traded and nontraded goods. The consumption of traded goods lowers the current account balance; the consumption of non-traded goods raises inflation. In turn, the accelerating rate of inflation lowers the real interest rate and places upward pressure on wages. This reinforces efforts to borrow for current consumption and it results in an increase in relative real unit labor costs. Both the additional consumption and the relative wage growth put downward pressure on the current account balance. This process continues until foreigners become unwilling to extend further credit because they fear that country will not be able to honor its net foreign liabilities. Once the confidence of foreigners breaks, the country experiences a crisis on the balance of payments (Hancké 2013).

In contrast to the 'sudden stop' narrative, there are a few contextual requirements for the 'competitiveness' story. To begin with, the 'competitiveness' story works best in the context of fixed or managed exchange rates, otherwise a realignment of the nominal exchange rate can compensate for movements in relative prices. That is why the problem of 'competitiveness' is so closely associated with euro membership – extended to include those countries that maintain a fixed exchange rate with the euro. A competitiveness story also needs a mechanism to link prices to wages and to wage growth across the traded and non-traded sectors of the economy. Finally, there should be some connection between the loss of competitiveness and the loss of foreign investor confidence. Investors take fright and withhold balance of payments financing because they are concerned that the accumulation of current account deficits will never be reversed.

The 'government finances' and 'household debt' stories can also fill in the gap between capital market liberalization and a balance of payments crisis. In these accounts, the liberalization of capital flows makes it possible for governments and households to borrow more cheaply and to service larger volumes of debt. The accumulation of debt continues until foreign investors begin to question the stability of government or household balances. In the 'government finances' story, foreign investors flee sovereign debt markets; in the 'household debt' story, they flee domestic banks.

What differentiates these 'government finances' and 'household debt' accounts from either the 'competitiveness' story or the more general 'sudden stop' is that they are sector-specific. This may seem like a minor distinction, but it is important insofar as this sector-specificity focuses attention on particular agents in the domestic economy. Governments are to blame

in one account; households in the other. By contrast, the 'competitiveness' story focuses attention on wage negotiators and a more general 'sudden stop' account is neutral with respect to who should hold responsibility.

Sudden Stops versus Competitiveness

The starting point for comparing the 'sudden stop' and 'competitiveness' accounts is to admit the obvious anomalies and irregularities. The Irish example is a case in point. Ireland has flexible labor market institutions and accumulated only a modest cumulative current account deficit (worth about 13 percent of gross domestic product, or GDP) during the period from the start of the euro in 1999 to the onset of the crisis in 2007. Moreover, as mentioned, the correlation between Irish current account performance and capital outflows is counterintuitive. Hence Ireland looks more like a sudden stop than a case of lost competitiveness. The question is whether Ireland is an exception.

The Italian case suggests it is not. Although Italy has notoriously rigid labor market institutions, its cumulative current account deficit over the 1999-2007 period is just 5 percent of GDP, even lower than that of Ireland. Indeed a close examination of Italy's export performance suggests it is surprisingly competitive (Tiffin 2014). Italian firms succeed not only in holding onto world export manufacturing shares but also manufacturing employment. This is curious insofar as there is evidence of a progressive appreciation of Italy's relative real effective exchange rate since the onset of the euro. Two possible explanations are either that this progressive increase in the cost of labor was offset elsewhere on corporate balances sheets – say, by a lower cost of capital – or that any increase after the start of the euro simply offset a competitive depreciation that took place prior to euro membership. Finally, there is the observation that Italy's current account was improving when it experienced its balance of payments crisis in 2011. For the competitiveness account, Italy is another exception.

Greece is also a problem case. Unlike either Ireland or Italy, Greece ran up massive current account deficits in the period from 1999 to 2007 (which is slightly longer than Greece's participation in the euro). The cumulative total over the period was more than 101 percent of GDP. But the mechanism at work behind this deterioration is hard to connect to Greek 'competitiveness' for at least three reasons. First, Greek real effective exchange rates appreciated by considerably less after it joined the euro than they did beforehand. The explanation is that euro membership brought Greek price inflation under control – eliminating a threat to competitiveness that consistently outran any advantages to be had from nominal currency depreciation when Greece retained the drachma. Second, Greece added manufacturing employment during its first eight years in the euro; this suggests that manufacturing workers were not 'too expensive'. Indeed, Greek real unit labor costs declined by 1.7 percent relative to the country's main trading partners during the 1999 to 2007 period even as total factor productivity increased by 15.5 percent. Third, Greece retained its tiny share of world export markets while moving up the value chain in the composition of exports within Europe. Between 2001 and 2007, fruits and vegetables, vegetable fats, wool, textiles and clothing all declined in importance as a share of Greek exports while pharma, plastics, metals, machinery, and road vehicles all increased. 10

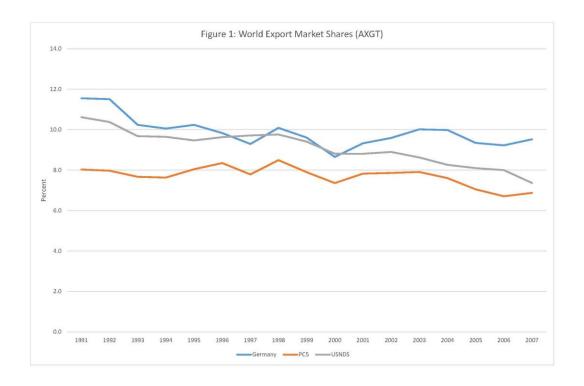
⁷ The AMECO code for world export market shares is AXGT and for manufacturing employment is NETM.

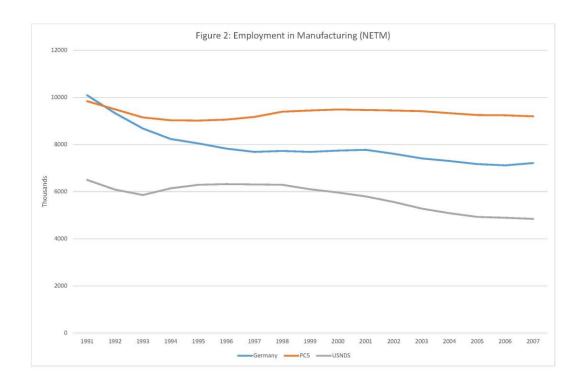
⁸ The AMECO code for relative real effective exchange rates is XUNRQ.

⁹ The argument here is based on an analysis of the decomposition of the relative real effective exchange rate (XUNRQ) into a relative nominal effective exchange rate (XUNNQ), a relative movement in GDP price deflators (PVGDQ), and a relative movement in real unit labor costs (QLCD). Those data lines are all reported separately in AMECO.

¹⁰ This analysis is based on analysis of Greek export composition with the rest of the EU-27 using two digit SITC codes as reported by Eurostat.

These three anomalies should not lead us to reject the competitiveness argument altogether. Arguably it does have some role to play in Spain and Portugal. It may be important elsewhere as well. However, the existence of such anomalies inside the euro area make it challenging to argue that 'competitiveness' is comparatively the most important of useful lens through which to interpret the European crisis (Cecchetti, McCauley, and McGuire 2012). The existence of anomalies outside the euro area makes the situation even more problematic. Here it is worth focusing on three aggregates of roughly equal importance for world trade: Germany, the five peripheral countries of the euro area (PC-5, meaning Greece, Ireland, Italy, Portugal and Spain), and a clutch of northern European countries that choose not to join the euro area (USDNS, meaning United Kingdom, Switzerland, Denmark, Norway, and Sweden). The presumption in the competitiveness argument is that the PC-5 should lose more export market share and manufacturing employment than either Germany (inside the euro area) or USDNS (outside). The reality is that for the period from 1999 to 2007, the PC-5 do much better in terms of manufacturing employment than either Germany or USDNS and they lose significantly less export market share than those north European countries outside the euro area (Germany's market share remains roughly constant over the period).





These patterns in manufacturing employment and export markets shares are inconsistent with any account of the crisis that gives 'competitiveness' pride of place. But they are irrelevant if we privilege a financial interpretation that centers on 'sudden stop' dynamics. Moreover, the financial interpretation will make it possible to explain why capital flowed out of Denmark and Sweden at the start of the crisis only to flow back in once the economic situation in the euro area periphery worsened. The financial interpretation also explains how the UK got into trouble (and the pound depreciated strongly) when there was a run on its banks and why small countries like Switzerland and Norway suffered from flights to safety by international investors. In other words, the financial interpretation has fewer anomalies and explains more variation than a 'competitiveness' interpretation of the crisis. Analytically, a financial interpretation offers more leverage in explaining events.

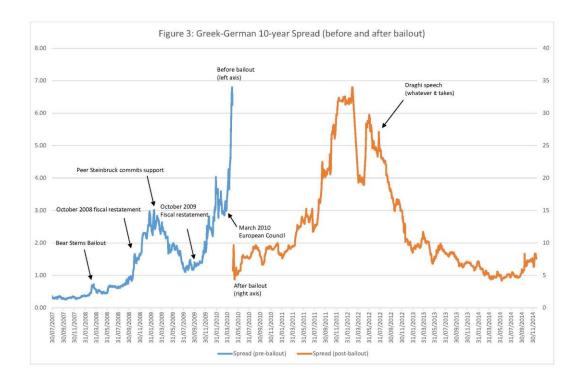
Sudden Stops versus Government Finances

The weakness of a financial interpretation of the crisis is that it requires a trigger to set off the movement of capital across borders. Hence it is worth asking whether the trigger or the mechanism warrants greater attention. This question is implicit in the comparison between a financial interpretation of the crisis and one that centers on government finances. The financial interpretation is almost purely mechanistic insofar as it invokes 'market actors' as an obscure kind of agency that loses confidence and moves assets. The government finances interpretation is more concrete as a trigger because it focuses on policy action. Governments behave recklessly and eventually get their comeuppance.

This comparison of the two interpretations draws on three country cases – Greece, Italy, and Belgium. The Greek case shows how market actors can hold different views on the same set of government finances, often changing in ways that are counter-intuitive given the data; the Italian case shows how market actors can adopt a strongly negative view from one day to the next; the Belgian case shows how market actors can lose their confidence only to see it

restored again. These illustrations are not completely at odds with a 'government finances' interpretation of the crisis, but they are more consistent with a more mechanistic financial interpretation than with one that privileges a particular kind of policy agency.

Starting with the Greek case, the first point to note is that Greece maintained a roughly constant ratio of sovereign debt to GDP during the period from 1999 to 2007 and the spread between Greek and German long-term sovereign debt instruments was roughly constant from the time Greece joined the euro in 2001 until the onset of the crisis. This spread began to change with the revelation of (yet another round of) Greek fiscal accounting irregularities in spring 2008, which was around the same time that the U.S. investment bank Bear Sterns got into trouble. Market participants began to liquidate their exposure to Greek assets and the spread between Greek and German sovereign debt instruments suddenly increased. This is consistent with a 'government finances' interpretation. The next jump occurred in October 2008. Soon after the collapse of Lehman Brothers, the Greek government announced a modest revision in its deficit figures and market actors again responded by liquidating their positions. Capital flowed out of the country and the spread between Greece and Germany again increased. Moreover, the pressure continued into the early months of 2009. It peaked only when then German finance minister Peer Steinbrück made it clear both to the German business community and the financial press that no euro area country would be allowed to go bankrupt (Benoit and Barber 2009). From that point onward, the pressure on Greek sovereign debt instruments diminished.



That pressure only increased again once a change in German political leadership brought the commitment to bailout Greece into question. In this account, it remains true that the accumulation of Greek sovereign debt was a necessary condition. But the agency behind the 'trigger' is German and not Greek. If the German government had remained committed to bail out the Greek state, the situation might have been different. A government finances account is consistent only with the interpretation that some crisis was inevitable even with a

German guarantee; a sudden stop account is consistent with either counterfactual alternative depending upon whether market actors lose confidence or regain it for any number of reasons.

The Italian case shows how market actors can suddenly lose confidence. Superficially, the story looks like Greece insofar as both countries have very high and persistent public debt to GDP ratios. Beneath the surface, however, the two cases are very different. Italy has very high quality public accounting statistics, excellent treasury operations and sovereign debt management, and it had the euro area's largest primary surplus – meaning excess of public revenues over receipts, net of debt servicing requirements. Italy also benefits from a large and very liquid secondary market for its sovereign debt instruments. Hence for much of the early phase of the financial crisis, market actors viewed Italy as a relative safe source of yield on their investments. Up until June 2011, Italy not only ran a surplus on its Target2 position with the rest of the euro area but the foreign holdings of Italian sovereign debt instruments increased.



This situation changed dramatically in late June and early July of 2011 as negotiations over a second Greek bailout raised concerns among international investors that the principal in their Italian sovereign debt holdings might also be at risk. Market actors began selling out their positions and repatriating their capital; the spread between Italian and German bonds suddenly increased and Italy's Target2 position with the rest of the euro area moved sharply into deficit. Moreover, no change in domestic policy, government, or institution could restore market confidence. Italy benefitted from periods of relative calm but always in a situation that would be unsustainable for the long-term. This only changed as a result of external intervention by the European Central Bank (ECB) in July 2012. By that point, however, the damage to Italian economic performance was sufficient to raise questions about the country's long-term debt sustainability under even the most optimistic interest rate environment. The problem for Italy is not government finances per se, it is the underlying

economy. Even historically low sovereign borrowing costs cannot make a difference. What they do reveal, however, is that the perceptions of market actors can swing free of long-term debt sustainability. This is more consistent with a sudden stop interpretation of the crisis than with a government finances account.

The Belgian case is another illustration of how market sentiments can swing free of government finances. Prior to the crisis, the Belgian state engaged in almost two decades of fiscal consolidation, bringing the debt-to-GDP ratio down from a peak of 135 percent in 1993 to a low of 86.9 percent in 2007. The collapse of Dexia and Fortis couple with the need to prop up other banks in 2008 and 2009 erased a chunk of the progress that had been made and the debt-to-GDP ratio began growing again. Then the May 2010 elections resulted in a hung parliament and more than 550 days of fractious coalition negotiations – the longest in European history. Market participants followed the story only sporadically until the onset of the Italian crisis in July 2011 – then the pressure on Belgian sovereign debt yields launched upward. The Belgian spread over Germany was 107 basis points on 30 June 2011; it was 366 basis points by 25 November. The pressure was enough to convince Di Rupo and his negotiating partners to hammer out an overnight agreement. By the time the government was invested on 6 December, the spread was already down to 214 basis points.

The contrast between the Belgian and Italian cases is important because it reveals the fickle assessments of market actors. Both countries went through a change of government in late 2011. Belgium received a lopsided coalition with a growing regionalist opposition; Italy received a technocratic administration headed by a former European Commissioner, Mario Monti, with a strong reputation for sound economic management. Belgian sovereign debt markets stabilized quickly with the formation of the new government despite the fact that the underlying sources of political instability remained acute, the banking system continued to need state resources, and public debt continued to accumulate. Italian sovereign debt markets enjoyed a brief honeymoon under Monti only to continue their deterioration. If there is an explanation for this pattern, it is more likely to be idiosyncratic than to be determined by government finances per se. In that sense, both cases fit most easily within a financial interpretation of the crisis.

Sudden Stops versus Household Balances

The 'household balances' account is like the 'government finances' interpretation in the sense that it privileges a particular agency; households live beyond their means and get into trouble, non-performing loans accumulate in the domestic banking sector, the state has to step in to shore up domestic banks, and international investors take flight from both sovereign debt markets and the domestic banking sector. Often the story involves the emergence and implosion of domestic asset bubbles in real estate, commercial property, asset-backed securities, or domestic equity markets. There are many uses of household leverage beyond consumption. Hence the point is simply that private actors are responsible for taking on unsustainable levels of debt.

The anomalies that Europe's most indebted households in Denmark and the Netherlands were not hardest hit by the crisis have already been noted. Moreover, the household balances pattern does appear to be relevant in the cases of Ireland, Spain, and, to a lesser extent, Portugal. It could also apply to Hungary and Latvia outside the euro area. The absolute levels of household indebtedness in these countries were not excessive but the exposure of households to foreign-currency denominated debt was problematic. Finally, the same pattern would fit the United Kingdom and even the United States (Mian and Sufi 2014). This broad range of diverse cases gives the household balances interpretation considerable traction in public debate.

The question is whether the household balances interpretation of the crisis adds much analytical leverage to the more general financial interpretation based on sudden stop dynamics. The answer depends upon how much autonomy households have in taking on foreign-financed debt, including debt in foreign currency. If households have considerable autonomy, then the appropriate policy response is to structure appropriate incentives to hold down household leverage. If households are likely to get into trouble whatever the mix of financial incentives, then a household balances interpretation of the crisis does not add much to the more general case.

Unfortunately, the mix of incentives is unlikely to have a decisive impact. It can change how credit is deployed and where leverage is concentrated, but it is unlikely to eliminate the accumulation of unsustainable imbalances. This is true because it is so much easier to make a country borrow than to make a country lend. Foreign investors searching for high yields can purchase sovereign debt instruments or other marketable securities including corporate bonds, equities, or derivatives. They can penetrate the domestic banking system directly by setting up branches or acquiring subsidiaries, or indirectly through purchases of secured or unsecured bank debt, by making deposits, or by participating in interbank markets. Such transactions not only increase the volume of liquidity in the economy but also crowd out domestic savings that will look for a suitable yield with a traditional home bias. The effect will be to price new domestic borrowers into the market for loanable funds. These will be new customers for lenders, who not only struggle to deploy the liquidity at their disposal but also to differentiate between good and bad customers. By implication, these lenders are likely to experience an adverse selection bias as much of the credit extended to participants only recently priced into the market for loanable funds will end up underperforming expectations (Martin and Taddei 2013).

By focusing on household balances, policymakers will only squeeze any surplus liquidity into other sectors of the economy (Caballero, Farhi, and Gourinchas 2008). Hence, while there is merit to the account, it is not a good guide to inform policy. A more general financial interpretation of the crisis performs better because it focuses greater attention on the mechanism of cross-border lending and borrowing.

Putting Finance First

A financial interpretation of the crisis does not exclude the possibility that there were countries affected by a loss of competitiveness, irresponsible government finances, or households living beyond their means. Such factors were present in different European cases to a greater or lesser extent. Moreover, each is important in revealing particular dimensions of the crisis as it unfolded. In that sense, a financial interpretation of the crisis should not obscure the valuable insights that other interpretations have to offer on specific cases.

Nevertheless a financial interpretation of the crisis does yield specific clusters of policy recommendations. To the extent to which these recommendations come into conflict with remedies specific to other interpretations of the crisis, the financial policies should be given priority. They offer the most general solution to the problem at hand and hence the greatest leverage in stabilizing European economic performance.

The financial interpretation suggests two competing agendas, focusing on different ends of the initial correlation. One agenda attempts to limit the impact of capital market liberalization; the other attempts to mitigate the possibility that international market actors will suddenly take fright and liquidate their domestic positions in order to repatriate their investments.

The agenda to limit the impact of capital market liberalization seeks to restore domestic policy autonomy even at the expense of sacrificing many of the benefits of financial market

integration. Within this agenda, governments should restrain the growth of household leverage, they should run conservative fiscal balances, they should place brakes on asset price growth in real estate markets, they should limit the dimensions of domestic financial institutions to a size that can be resolved without straining national resources, and they should discourage excessive cross-border exposure to wholesale markets or currency mismatches. Such an agenda amounts to a renationalization of finance within integrated capital. Ironically, it is also the symptom of the current crisis elevated to a 'new normal' status. ECB President Mario Draghi (2013) warned in the immediate aftermath of the crisis in Cyprus that European policymakers would have to accept this renationalization of finance if they were to resist empowering common institutions; many European policymakers including Eurogroup President and Dutch Finance Minister Jeroen Dijsselbloem seemed to argue that this renationalization of finance would be preferable to the alternatives (Spiegel 2013).

Policies to strengthen national competitiveness, consolidate government finances, and repress household balances can complement this agenda to restore domestic policy autonomy. Market structural reform to enhance competitiveness helps to minimize the impact of negative shocks and to maximize the gains to be hard from any openness to trade. Fiscal consolidation limits both the crowding of domestic investment and any exposure to potentially liquid foreign investments. And household financial repression helps to keep savings high and leverage in check. This complementarity is not without contradictions. The end result not only limits the benefits of financial market integration but also pushes domestic imbalances onto other participants in world markets. The policy is only successful so long as it is not universally adopted because any surpluses generated domestically must be offset by deficits experienced elsewhere. This statement holds for domestic savings, which will necessarily find their way into foreign investments. Governments can limit the vulnerability of their national to sudden stops at home but only at the expense of becoming a source of risk abroad.

The agenda to stabilize integrated financial practices focuses on a wider array of measures to build investor confidence and to channel any flights to liquidity or quality in ways that do not drain resources from individual national economies. Within this agenda, the ECB plays the role of lender of last resort by placing a floor under sovereign debt markets through the promise to make direct purchases of unlimited amounts of distressed country sovereign debt instruments with relatively short residual maturity in secondary markets (called outright monetary transactions, or OMT). This agenda also includes the European banking union with the ECB as a single supervisor using a common rulebook, the promise of a common resolution authority with pooled resolution financing, and the prospect of some kind of common deposit insurance mechanism including both comparable standards for insurance and coverage and adequate funds to cover contingent liabilities (Howarth and Quaglia 2013). This banking union is unlikely to be as comprehensive in practice as it could be in theory; by adopting a financial interpretation of the crisis, European policymakers would see good reasons to be more ambitious.

There are other elements that emerge in an agenda to stabilize European financial market integration. The capital markets union project being developed by incoming European Commission President Jean-Claude Juncker and his team promises to sketch many of the key technical components (Hill 2014). Nevertheless, there is one feature that has been on the table since November 2011 – and that is the mutualization of at least some share of European sovereign debt in a common Eurobond or similar instrument (European Commission 2011). This instrument would not only provide a reservoir large enough to absorb any flight to liquidity or quality in the event of a crisis of confidence, but it would also do so without necessary pulling investment capital across national boundaries. The reason is that Eurobonds would trade freely in each of the participating countries much as United States (U.S.) treasury instruments trade freely across the various U.S. states. Banks and firms could use these Eurobonds for their treasury operations, pension funds and insurance

companies could hold them as their principal long-term assets, and household could rely upon them to safeguard their savings. In times of distress, a flight into Eurobonds would strengthen rather than weaken the balance sheets of those who hold them. And, together with an adequately functioning Target2 system, the redistribution of liquidity would be automatic. This would not eliminate all of the adverse consequences of a loss of investor confidence, but it would make it as hard for investors to short Italy to purchase Germany as it is for them to short Mississippi to buy New York.

Any efforts to improve national competitiveness, consolidate government finances, or repress household balances could complement the construction of multilateral institutions to stabilize financial market integration as well. However, to the extent to which such efforts distract political attention away from the goal of stabilizing financial market integration or weaken economic performance in a manner that saps market confidence, they are likely to be counter-productive – at least in the short to medium term. The argument here is that such efforts are mistimed and not misguided. Should all countries seek the same combination of export competitiveness, fiscal austerity, and household financial repression that would be misguided for reasons already elaborated.

If policymakers can maximize their leverage over the crisis by focusing on creating a banking union, a capital markets union, and ultimately a Eurobond, then they should give those projects priority consideration. Such measures are likely to provide the greatest support to the largest number of cases. That is the best rule of thumb for dealing with an overdetermined crisis like the one European policymakers currently face. The alternative of trying to pursue multiple, overlapping, and contradictory agendas is less attractive because it is likely to prove less effective. Europe's policymakers appear to be muddling through as a consequence. Instead they should recognize a clear choice between the renationalization of finance and the stabilization of cross-border financial integration. That is what a financial interpretation of the crisis highlights. What remains to be seen is which of the two alternatives Europe's policymakers will take.

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