Chapter 2 | Modern Capitalism and the Advanced Nation State: Understanding the Causes of the Crisis

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WE ARGUE IN this chapter that the crisis illuminates the relationship between modern capitalism and the advanced nation state. Advanced nation states are deeply concerned—in a world in which they can no longer use protection, direct intervention, or subsidies—with promoting the interests of their high value-added sectors, which are central to their innovation and human capital investment systems, as well as the source of well-paid employment and tax revenue. In relation to the crisis, comparative institutional advantages led the U.S. and U.K. governments to be concerned with regulatory environments that promoted, among other things, their innovative and high-risk financial sectors; they also led Germany and Japan to fashion or maintain regulatory environments that promoted high value-added export sectors. As we develop the argument, powerful domestic high value-added sectors increase the power of the advanced nation state in the global knowledge economy, just as the differences between those sectors across nation states explain why governments have not been and are not interested in pooling economic sovereignty. Rather, they have wanted to hone relevant regulatory systems for the benefit of their advanced economic sectors.

Two central regulatory systems were key to the crisis. The first was the system of financial regulation, and in particular the set of rules governing the leverage of so-called highly leveraged financial institutions (HLFIs) and the systemic monitoring of these institutions. The second was the sys-

tem governing macroeconomic regulation, including the operation of fiscal and monetary policy. The financial regulatory system failed to prevent major HLFIs from developing exceptionally high leverage multiples in financial systems in which major HLFIs were systemically interdependent. And the macro regime failed—indeed was not designed—to prevent the development of global imbalances.

That these two regulatory systems, however, should have proved dysfunctional would have been surprising to many commentators through the two decades before the crisis, the two decades in which the systems took concrete shape. The systems imposed something like international uniformity on macroeconomic management and national financial regulation for the first time since Bretton Woods. In the system of inflation targeting, independent central banks were given responsibility for macroeconomic management and used interest rates to return deviations of inflation and unemployment to their target or equilibrium values. They did so within a more or less common macroeconomic framework, that of the so-called New Keynesian macroeconomic model. Many policy-oriented macroeconomists agreed with Ben Bernanke's assessment that this system was responsible for the Great Moderation in inflation and unemployment since the early 1990s. In addition, that inflation targeting should be carried out without international coordination was not disputed. Indeed, inflation targeting within the New Keynesian framework and without international coordination is still generally accepted.

Equally, the broad regulatory system of financial liberalization and international mobility of financial assets and financial institutions became widely agreed upon over the last two decades. As with the macroeconomic system, the regulators were primarily national, minor qualifications for the EU being the exception. Again, this was widely endorsed by professional economists, at least in relation to the advanced economies. With hindsight, one can be critical of these arrangements, but many in the business community saw, and still see, financial liberalization as a positive development for at least three reasons. First, it generated competition for domestic banks and led to reductions over time in borrowing costs. This reflected the oligopolistic structure of much domestic commercial and retail banking that had developed since the 1930s. Second, the great rise in international competition in goods and services associated with the development of the global knowledge economy led large companies to use financial markets to pressure employees, including management, to become more flexible. Third, and as a consequence of this, risk, openness, and the complexity of business investment increased, generating the need for complex financial derivatives to hedge risks.

In broad terms, then, these two key regulatory systems were accepted and approved by the governments of the advanced countries, as well as by their business communities. But the systems were not internationally administered, nor were there detailed international agreements on their rules. For example, as far as banking regulation was concerned, the attempts to do this via the Bank for International Settlements (BIS) and Basel II were unsuccessful; and the story, though unending, of the International Accounting Standards Board (IASB) and common accounting standards is similar. The broad principles were accepted internationally, but both the detailed rule-making and regulatory authorities were at the national level. Interpretation of rules in specific cases, monitoring of financial institutions, sanctions, and assessment of systemic risk, as well as interest rate setting and fiscal policy choices that affected external imbalance, all took place at the national level.

The basic argument of this chapter is that national control of these systems was not accidental. Instead, in our view, national governments—especially of advanced countries—are deeply concerned with promoting the high value-added sectors of their economies, in which they enjoy comparative institutional advantage. Because these sectors vary across countries, governments want to control the detailed operations of regulatory systems in their own environments.

There is now little dispute that the U.K. and the U.S. governments allowed a lax interpretation of the financial regulations governing leverage, both in the valuation of the risky assets that HLFIs owned and in the assessment of bank capital; we argue that they took this position because they saw it as beneficial to one of the most important economic sectors in which the United States and the United Kingdom had comparative institutional advantage. It was certainly true that the large banks were politically powerful in the United States, but this was far less so in the United Kingdom with its centralized and disciplined political system—yet Thatcher had made the first move to the liberalization of the City with the Big Bang in 1985 and Blair had enthusiastically supported light-touch financial regulation.

Analogously, in terms of external surpluses, the governments of Germany, Japan, China, and other nations whose leading high value-added sectors are export oriented were not and are still not prepared to accept constraints on external surpluses. Such constraints would imply expansionary fiscal or monetary policies generating real exchange rate appreciation, thus damaging the interests of the sectors in which they have comparative institutional advantage. The precise arguments are spelled out in the following sections.

HOW THE CRASH OCCURRED

How did the combination of global imbalances and loose regulation of leverage of systemically interdependent financial institutions lead to the crash? The crash was not simply financial and not simply confined to the two epicenters of the original implosion, Wall Street and the City of London. It was also a most dramatic recession of the real economy, and both financial and economic collapse was propagated internationally. We sketch out how the financial crash was the initiating event.

Let us first look at the financial implosion. In a simple model, assets can be divided up into risky assets and safe short-term assets, such as treasury bills or short-term loans to financial institutions. The key institutions in the initial story are the big investment banks located in Wall Street and the City, including the investment banking subsidiaries of the major European and Japanese banks. Hedge funds play a quite subsidiary role with generally much lower leverage. The big investment banks undertake a wide range of activities, but a large part of their profits are earned from borrowing on a short-term basis and earning a higher rate of return by using these funds to buy risky and typically longer-term assets. A simple example of an HLFI balance sheet with some numbers is presented in table 2.1.

Here the leverage is ten—the capital is multiplied up ten times. A critical issue is the value of the institution's capital and how it changes. Suppose the HLFI starts up by raising equity of $10; that is its initial capital. It then borrows $90, and buys 100 risky assets at a price of $1 each. We assume $90 is the maximum that can be borrowed given capital of $10, and the known risk attached to the risky assets. For a risk-neutral HLFI, the leverage is the maximum that short-term lenders will allow—assuming the HLFI is making a positive marginal return with the maximum leverage. At the end of a year, it earns 7 percent on the risky assets and pays 3 percent on the short-term borrowing; assume the value of the risky assets has not changed; then profits are 4.3, so the return on capital is 43 percent. If no dividend is paid, profits are added to existing capital and that capital increases to $14.30. If investors adopt similar principles as before, they are now prepared to lend $130, and the HLFI buys additional risky assets so that its holding of risky assets is now $144.30. The next year it distributes all its profits so that its retained earnings are zero; hence capital remains at $14.30, still assuming the value of a risky asset stays at $1.

A critical element is what happens if, for whatever reason, the price of the risky assets changes. Work by John Geanakoplos (2010) and Hyun Shin (2010) has greatly increased understanding of the joint determination of risky asset prices and leverage ratios, and how big covarying swings in leverage and prices arise. The mechanics are as follows. If, for whatever

Table 2.1   Sample HLFI Balance Sheet

Assets	Liabilities
Risky assets 100	Short-term borrowing 90
	Capital 10

Source: Author's compilation.

reason, the price rises (basically some news that leads to a positive re-evaluation of their profitability or risk, hence to a generalized rise in their demand from HLFIs and other investors, hence to a higher price), HLFI accounting implies that the capital gain on existing risky assets is added to the existing capital. In the last example, if the risky asset price rises by 10 percent, then the capital gain is $14.40, and the HLFI's capital doubles to $28.70. There is now a multiplier process, because with a constant leverage the demand for risky assets by HLFIs will increase. Because the relative demand by HLFIs has now risen, risky assets will be sucked in from other investors to the HLFIs. This process continues until a new equilibrium is reached at multiplied-up prices and a higher leverage, reflecting the rise in the quantity of risky assets in the HLFIs.

If the reverse happens and the price falls by 10 percent, then the HLFI makes a capital loss of $14.40. Again the initial price fall, on the receipt of bad news, leads to a multiplied reaction. Of course, the asymmetry between upward and downward cycles is that in the latter bankruptcy is possible. In this example the HLFI's capital is in fact wiped out with the initial price decline: and once this happens, the HLFI is bankrupt. The higher the leveraging of the capital, the smaller the price fall needed to bring about bankruptcy: a leverage of twenty requires a fall of only 5 percent, of forty (roughly the Lehmann multiplier), 2.5 percent.

The risky assets are in general not quite so dangerous as this makes them sound; they are typically complex loans or derivatives ultimately to households or companies at least partially secured against collateral, rather than equity. When initially sold, they were priced in terms of the available statistical information on past micro as well as macro risk patterns. Moreover, two financial instruments had been rapidly developing over the previous two decades, which had radically reduced the riskiness of individual assets. Securitization—through the use of collateral debt obligations (CDOs)—bundled loans such as mortgages, credit card debt, student loans, and bank loans, thus minimizing individual default risk, and cut the securitized packages into different risk tranches. Credit default swaps (CDSs) "insured" assets against a wide range of defaults.[1] These instruments were not new—in some form or other they had always ex-

isted—but they had expanded in a massive and increasingly complex way over the previous two decades. In turn both CDSs and CDOs were or could be rated by the rating agencies. As long as individual risks were idiosyncratic, at least not hugely positively correlated, these instruments acted effectively to reduce aggregate risk.

The two major problems with the development of this system were both based on the weight of a limited number of very large HLFIs, all of which invested in similar classes of risky assets, including CDOs and CDSs, and the relatively shallow market for these assets outside the HL-FIs. First, if the price of a class of assets fell exogenously, and we will see why it might, even without provoking a bankruptcy, it required all the HLFIs to sell risky assets to restore their desired leverage ratios; this, though, implied significant price falls across their asset classes because they were the major buyers of these assets—there was no elastic outside market for them. This in turn generated a multiplier process of further asset sales, further price falls, and so on, to restore a leverage at which short-term borrowers would be prepared to lend. Second, *if* a large HLFI did get forced into bankruptcy, the system as a whole came under risk. This was directly because each major HLFI was engaged in the hugely profitable CDS business, so that a HLFI bankruptcy set to zero the value of all the CDSs it had issued and were held through the system. Next, it put under pressure the issuers (counterparties) of CDSs contingent on the bankruptcy of that HLFI—Lehmann's collapse was the major hit on AIG. In addition, the market was flooded with its erstwhile risky assets leading to further price falls in the relevant asset classes. Finally, it necessarily defaulted on some portion of its liabilities, of which a proportion came from other HLFIs, with knock on effects on the assets of the other HLFIs.

All of this was in principle consistent with agreed values of the risky assets. But a further and massive complication was the uncertainty of their value, which was a consequence of the absence of monitoring and detailed surveillance of the relevant markets. Now it became unclear whether other HLFIs might go bankrupt. And this led to an effective freezing of the market for short-term borrowing, as no financial institution was prepared to lend overnight without exceptionally high interest. This situation was unsustainable without the government support then forthcoming. In this sense, all the major HLFIs were probably too big to fail.

Global imbalances hugely magnified this process. The external surpluses of the net exporters played a dual role. On the one hand, they allowed U.S. consumers to spend above U.S. GDP, and U.S. consumers had to dissave to finance this deficit. On the other hand, the external surpluses provided short-term loans to the HLFIs to cover the acquisition of a large proportion of the risky assets—that is, securitized loans—that financed

the consumption. They were of course also used, for example, by German banks in Germany to purchase the risky assets themselves.

The first point follows from the basic macroeconomic equation requiring that aggregate demand be equal to equilibrium output (GDP) in the medium term. In a simple model assume that all domestic expenditure is on consumption, C:

$$y^e = C + X - M$$

Equilibrium GDP, y^e, is equal to total demand for domestically produced goods and services, consumer expenditure, C, and exports, X, less that part of demand produced abroad, imports, M. Household savings, S, are $y^e - C$, so that

$$S = X - M$$

With $S < 0$, dissavings are exactly equal to the external deficit, $-S = X - M$. (With net investment, I, that is, gross investment less business savings, and a public sector deficit $G - T$, $X - M = (I - S) + (G - T)$, the foreign surplus is equal to the net private sector deficit and the public sector deficit.) With net investment and the public sector deficit zero, an external deficit is necessary to allow net household sector dissavings. Absent an external deficit, household dissavings would have required a public sector surplus or a surplus of business savings (retained earnings) over investment. Given the public sector deficit in much of the 2000s in both the United Kingdom and the United States, and only recently positive net business savings, global imbalances were central to the build-up to the crisis from a macroeconomic perspective.

The external surpluses had a second function: they provided short-term loans to the HLFIs to cover the acquisition of a large proportion of the risky assets (securitized loans) that financed the consumption "permitted" by the global imbalances. The surpluses of the exporting countries to the United States were possible only if the exporting countries were able to use the dollar proceeds such that they did not end up on the foreign exchanges. If no one had been prepared to hold the dollars, then the value of the dollar would have fallen until the surplus had been eliminated. Alternatively, traders might have absorbed the dollars when the depreciation was such as to generate expectations of an appreciation. The maintenance of a surplus therefore required that the dollars were used to

purchase in-effect American assets. This could have taken many forms: direct investment in property or purchase of companies, investment in equities, and so on; and considerable investment took place in all these assets. But a major attraction of Wall Street was the safety of investing in short-term treasury bills and in short-term loans, at slightly higher rates, to the investment banks. The short-term market had very low transaction costs and was highly liquid; London offered similar opportunities on a smaller scale. Both London and Wall Street offered risky assets that appeared safe because of validation by the major rating agencies and the possibility of insurance through CDSs. Demand for loans from the housing, credit card, and automobile finance markets combined with a correspondingly massive supply of funds in the form of short-term loans to HLFIs and in purchases of securitized risky assets.

Had there been no global imbalances, a minor crash might have taken place. Hyman Minsky shows how on several occasions in the United States from the 1970s forward the collapse of a significant financial institution led to a downturn in the economy, albeit minimized by government deficits and lender-of-last-resort action by the Federal Reserve (1986). The scale of the financial crash in 2007 to 2009 was of a different order of magnitude than those of 1974 to 1975 and the early 1980s; here the global imbalances played a major role and despite the massive interventions of the authorities, the financial crash led to the worst crash in the real economy since the 1930s. The major effects of the real crash were felt primarily and initially in the United States and the United Kingdom, and spread through much of the world economy as American and British imports declined sharply, and as exporting countries felt financial pressures from their own bank failures as a result of investing in risky U.S. and U.K. assets.

Why did the financial crash lead to a crash in the real economy? The real economy crashed because consumer expenditure and business expenditure both collapsed. Three separate shocks hit both households and companies. First, bank and to a lesser extent mortgage lending, including trade credit, seized up. The reason was straightforward: as the interbank borrowing and lending market became inoperative for reasons we have seen in the financial crisis, banks became desperate to hold onto liquid assets, and thus cut lending sharply and called in loans. This move was reinforced by their concern with building up capital to avert the risk of bankruptcy, all the while facing the threat from hitherto reliable creditors of cutting lending to the banks. As bank lending dried up, both household expenditure and business expenditure, a proportion of which depended on trade credit, were sharply cut back. Second, household wealth fell as house and stock prices fell. Because it was in part on growing household

wealth that households had based dissaving decisions, believing that they could rely on rising property and equity values for their pensions, the decline of all three led households to switch from dissaving into saving. Third, expectations in the business community about the future growth of markets changed dramatically and investment activity came close to a halt unless the costs of stopping were too great.

Finally, in the event of a serious financial crisis, inflation targeting loses some of its efficacy as the leading tool of demand management. The direct reason is a minimum (short-term) real rate of interest a central bank can impose. The nominal rate of interest is bounded below by zero; hence the real rate of interest—equal to the nominal rate less the expected rate of inflation—can never be set below minus the expected rate of inflation. Negative real rates of interest are thus quite possible with high inflation—precisely when the central bank does not want them. But in a serious crisis, expected inflation (well proxied by existing inflation) is close to zero, if not negative; and aggregate demand has typically fallen enough that only a negative real interest rate would push activity above the equilibrium level.

This weakness of the interest rate instrument is reinforced by two other factors. As bank lending dries up for the reasons we have seen, so households and companies cannot find willing lenders. In any case, the switch from dissaving into saving reflects the wealth effect dominating the substitution effect, so that for the relevant households a low interest rate now works in the opposite direction: the lower the interest rate, the more a household has to save to attain its pension target level of wealth.

Finally, how was the financial and real crash in the epicenter countries, the United States and the United Kingdom, propagated to the exporting countries? The collapse of aggregate demand in the epicenters transmitted itself directly by a collapse in epicenter imports, hence exporting country exports. It involved two mechanisms. Most important and obvious, the fall in epicenter GDP reduced household consumption and business investment, both implying a decreased demand for exports. More subtly, the prospect of low interest rates in the epicenters for some years led foreign exchange markets to depreciate the dollar and sterling against the euro and the yen in nominal and real terms, reinforcing the downward pressure on exports.

But a major factor limited the deflationary effect in the EU exporters and in Japan—the strength of the welfare state in these countries. In Japan, this took the form of a guarantee of lifetime employment in the more highly skilled parts of the economy; in more informal ways similar arrangements, though less widespread, operated in South Korea and Tai-

wan. In the formal welfare states of northern Europe, skilled workers either got high replacement rates if they became unemployed, were protected by employment protection, or benefitted from part-time arrangements that underwrote a high proportion of their full-time net disposable income; they were also protected by collective bargains from falling wages. We would argue that the availability of these mechanisms—formal welfare states or less formal understandings—is a consequence of the co-specificity of skill investments in skill-intensive exporting sectors (Iversen 2005; Estevez-Abe, Iversen, and Soskice 2001). We explain subsequently why countries like Germany did and do not make significant use of discretionary fiscal policy, and how that reluctance also reflected the institutional incentive structures of export-oriented economies.

Thus fiscal policy becomes the more effective instrument for stimulating demand, at least for a period. But where the necessary fiscal policy is discretionary, as in the United States and the United Kingdom, there is both a political lag in gaining the consent of the legislature, and an implementation lag because government expenditure cannot easily be turned on like a tap. A period therefore elapses before either monetary or fiscal policy becomes operative and effective, and during this period aggregate demand is likely collapsing, adding to adverse expectations of both households and companies.

EXPORT-ORIENTED CAPITALISM: MECHANISMS OF DOMESTIC RESTRAINT AND EXPORT PROMOTION

In this section, we argue that the institutions of coordinated market economies (CMEs) generate restraint in the use of resources in a variety of ways. The argument is not that these are the intentional consequences of these institutions (they may be or may have been), but that they are the consequences of strong institutional complementarities.

Restrictive Monetary Policy and Real Wage Restraint in the Traded Sector

A number of studies have shown empirically that where wage bargaining is coordinated, central banks are conservative. In line with a number of papers in the political economy and macroeconomics literature, we explain why that is the case (Hall and Franzese 1998; Iversen 1998; Soskice and Iversen 2000). In terms of inflation targeting, what does this mean? In inflation targeting, central banks primarily target inflation, target inflation rates are broadly similar across inflation targeting regimes (2 percent to 2.5 percent), and it is an accepted part of the model that optimal unemployment (output) for central bankers is equilibrium unemployment (output), the unemployment (output or activity) rate at which inflation is stable. Although this much is common, the difference between more conservative and more accommodating central banks rests on the sharpness with which central banks respond with interest rate changes to inflation or output shocks that push the economy off its target combination of target inflation rate and equilibrium output rate. The conservative central bank will aim to move the economy quickly back to equilibrium after a positive inflation shock, for example, implying the use of the short-term real interest rate to push up unemployment enough above equilibrium to bring inflation back down rapidly.

Unions in the traded sectors of the economy are sensitive to the increased interest rate because it pushes up the real exchange rate, putting export- or import-competing employment at risk. Export sector companies are similarly sensitive and for related reasons. The objective function of a central bank is generally modeled as a loss function, say

$$-L_0 = -\sum_{t=0} \mu^t [(Y_t - Y^e)^2 + \beta(\pi_t - \pi^T)^2],$$

where Y_t is output in period t, Y^e is equilibrium output, π is the inflation rate in t, and π^2 is the target rate of inflation. The central bank's goal is to minimize over time divergences from its target combination. In principle, if the conservatism of a central bank is defined by its preferences, it will have a high β (more concerned to get inflation back to target) and a high μ (concerned to get back to target quickly). But the political economy argument relates to central bank behavior and does not depend on central bank preferences. The behavior of central banks is manifested in the *monetary rule* (or Taylor rule) it adopts: this tells us how the central bank will change the short-term real interest rate in response to an inflation shock.

The argument is that the choice of central bank accommodation is endogenous to the coordination of wage bargaining. At first sight paradoxically, if the number of uncoordinated wage and price setters in an economy is high, the central bank adopts a more accommodating response to above-target inflation, though its response is more conservative when wage bargaining is coordinated. With many wage and price setters, a potentially sharper response to an increase in aggregate inflation by the central bank has no dampening effect on the individual wage or price setter

because they know that their individual wage or price increase will have no effect on aggregate inflation and hence on the central bank response. The central bank will therefore tend to the accommodating end of interest rate policy. But where wage bargaining is highly coordinated, where unions and business organizations are large and powerful, the individual union or employer group will pay considerable attention to how sharply the central bank will respond to its wage increases because these will have a noticeable effect on the rate of inflation. Hence coordinated wage bargaining will lead central banks to adopt non-accommodating positions: this turns out to be the case (Soskice and Iversen 2000; Iversen 1998).

The form of the Taylor rule in an open economy is $r = r^* + \gamma (\pi - \pi^T)$, where r is the domestic short-term real rate of interest and r^* is the world short-term real rate of interest. In the standard derivation, the central bank takes the Phillips curve as given and chooses its optimal Taylor rule. The standard derivation shows the central bank interest response to an inflation shock, with

$$\gamma = \frac{1}{a\left(\alpha + \dfrac{1}{\alpha\beta}\right)},$$

increases in β, the conservativeness parameter in the CB loss function, in α, the responsiveness of inflation to labor market conditions in the Phillips curve, and decreases in a the responsiveness of future output to the interest rate. Once the central bank faces a small number of large wage and price setters, however, we are in a Stackelberg game: the central bank makes the first move by choosing a Taylor rule; wage and price setters optimize wage-setting based on that—the larger γ, the more restrained the wage setting—and this determines the Phillips curve with the response coefficient in the Phillips curve as a function of γ; and the CB then chooses γ to minimize its loss function.

Restrictive Fiscal Policy and Real Wage Restraint in Sheltered Sectors

It has been noted by many commentators that CMEs are relatively fiscally restrained, measured in a variety of ways, notably in terms of the public sector deficit (for example, Soskice 2007). This is not a statement about the size of the government sector nor about the extent of transfers. In the European CMEs, the general tendency for center-left government has led to relatively high provision of public services or public-private services operating within a publicly defined framework. This is even more the case for transfer payments both in terms of insurance and redistribution. Why then the seemingly paradoxical fiscal restraint?

First, public sector labor markets are both unionized and heavily protected. That a relatively large proportion of the skilled workforce is in the traded sector has reduced the pool of available labor for the public sector. Indeed, in some countries, centralized unions presided deliberately over wage compression between traded and sheltered sectors, aided in the sheltered sectors by the relative tightness of these labor markets. Given relatively strong public-sector unionism, perceived fiscal restraint has been important in holding down public-sector wages to avoid raising taxes.

But second, and explaining the significance of fiscal conservatism in addition to monetary conservatism, conservative monetary policy set up quite different incentives for unions in the sheltered sector in comparison to those in the export sectors. Whereas export-sector unions saw the threat of increased interest rates in response to rising inflation as raising the exchange rate and generating unemployment, public-sector unions were relatively well protected against redundancies and saw an appreciating exchange rate primarily in terms of lower import prices. Hence, for public-sector unions a restrictive monetary policy regime generates positive rather than negative incentives for high wage settlements.

These factors stretched beyond the public sector into many other parts of the private sheltered sector. The nature of decision-making, both in the economy and in the polity of these societies, has been one of coordination and neo-corporatism. In the private sheltered sector, even when unions are not strong, associational principles apply to business. Hence government needs fiscal restraint to deal with well-organized lobbies. Switzerland is a good example of this.

Thus we argue that fiscal and monetary conservatism reinforce each other in export-oriented economies, especially when wage- and price-setters are well organized in both open and sheltered sectors of the economy. The only exception is when wage bargaining is so centralized that a single union can internalize all the potential externalities of wage bargaining. As we have shown elsewhere (Iversen 1998; Soskice and Iversen 2000), this explains the relatively accommodating behavior of Scandinavian governments over a long period. But because collective bargaining has become relatively more decentralized since the 1990s in the Scandinavian economies, these economies have adopted more conservative monetary and fiscal policies.

Real Wage Restraint in the Traded Sector and the Development of Skills

Export-oriented capitalism has operated at the national level over many decades through a complex set of coalitions to ensure that a suitably large proportion of the workforce is trained in the relatively specialist skills needed in high-quality export sectors (Iversen and Soskice 2010). One coalition, between organized business and coordinated unions in the export sectors, and possibly—in the case of unions—in the sheltered sector as well, held down real wage growth sufficiently to expand export demand to create employment for newly trained skilled workers. Absent such restraint in liberal economies, company-level unionization would push up real wages to prevent absorption of newly trained workers, and the incentive for training would be impeded. A second, political, coalition between left and center parties in the form of center-left governments, dominant in the European CMEs, supplied the resources for public-private sector training in implicit exchange for the wage compression that came about as an increasing proportion of the workforce shifted into the export sector. Thus this mechanism conjointly generated wage restraint to shift out export sector demand and the training to enable a corresponding increase in the necessary supply of specialist export-sector skills.

Private Savings

As noted, the skills and assets characteristic of export-oriented economies—for example, the skills needed to work with particular technologies and the particular technologies themselves—are specialized and may not be easily or fully redeployable outside a particular range of markets. This is basic to the Krugman view of trade. On the one hand, it provides a powerful incentive to develop as many export markets for the goods or services as possible (Krugman's economies of scale). On the other hand, it requires insurance in various forms to meet demand fluctuations. These incentives reinforce each other. Companies and employees, for example, will want some guarantee of long-term finance to tide over bad times without companies being forced to close and employees move elsewhere. This reflects in one form or another a guarantee of access to long-term borrowing. Second, as we have seen, export-oriented economies have developed relatively strong insurance-based welfare states. Finally, and fundamentally, companies and employees have a strong incentive to build up private wealth to cover fluctuations. This may take many forms: companies may develop quasi-private systems of unemployment insurance or pensions or also have rules about limits on gearing or leveraging of assets

in the case of financial institutions; households may build up their private wealth to supplement the perceived resources of companies and of the state.

The Positive Externalities of Exports

More generally in the export-oriented countries, exports produce positive externalities. The functioning of the vocational training system—of the technical universities and of tertiary professional and technical education more generally, of the technology transfer and innovation systems, of the surrounding business associations, as well as of the high value-added sectors that feed into the export sectors—depends on the size and profitability of the export sectors in the export-oriented economies. Benefits are less quantifiable but equally important in terms of the cooperation of workforces with long-term company tenure and co-specific skills, where aligning the incentive structure of skilled employees with their companies depends on longer-term export viability. For these more general reasons, governments may be cautious about expansionary domestic demand that has the effect—as described in the next section—of appreciated real exchange rates.

THE SURPLUS EXTERNAL BALANCE BIAS AND MODERN MACROECONOMICS

In the previous section, we argued that the institutions of the export-oriented advanced economies generated restraint in the use of domestic resources and promote the supply side of exports. This is not true in liberal economies where wage-setting and training policies do not favor the export sector, and where macroeconomic policies are geared toward maintaining demand. Here we show how, in equilibrium, export-oriented economies not only exhibit high exports but also tend to run a surplus on the external balance, and that the opposite is true for liberal countries. This produces capital exports to the liberal countries, which fuelled the high leverage in those countries. This is an inherent feature of the current international economic regime because there is no reason to think that any government would find it in its interest to promote a balanced trade constraint. In this sense, the roots of the current crisis are structural.

To make our case, we first establish that the rules of the game increasingly being adopted for governing macroeconomic policymaking, namely inflation targeting, are in fact neutral with respect to the deficit-surplus bias: persistent surpluses and deficits are possible in the current global economy. This is a necessary condition for the current equilibrium to be

sustainable. We then suggest why the imbalance takes the particular form it does: liberal countries absorbing surpluses from elsewhere. This gets us back to institutional differences and establishes the sufficient condition for the global equilibrium. We briefly consider a country that currently does not play by the established rules—China.

We start by framing the argument in national income accounting terms. This explains how surpluses and deficits are related to capital movements, and provides the background for understanding the effects of macroeconomic policies. The external surplus (on the balance of trade in goods and services), exports minus imports, $X - M$, is equal to the difference between GDP and expenditure by domestic residents (households, companies, and government) where Y is GDP or domestic output, C is consumer expenditure, I is investment expenditure, and G is government expenditure:[2]

$$X - M \equiv Y - (C + I + G)$$

The right hand side measures total domestic net savings, public and private. The equation can be rewritten to reflect the separate impacts of the public and private net savings on the external surplus. The difference between domestic output Y, which is also equal to domestic income, and household consumption C must go to private savings, S, and taxation, T:

$$X - M \equiv (Y - C) - I - G \rightarrow X - M \equiv (S + T) - I - G = (S - I) + (T - G)$$

In terms of financial flows this is identical to:

Acquisition of foreign financial assets = External balance = Private sector financial surplus + Public sector financial surplus

where financial surplus is acquisition of financial assets by a sector. So, when there is a surplus on the external balance, capital will be exported, but if there is a deficit on the trade balance, it will be imported.

We now put the key elements of wage restraint identified in the previous section into a simple medium-term open economy equilibrium model to show the role of macroeconomic policies. In characterizing this model a small open economy, which takes as given the world real interest rate, r^*, is assumed; we modify this subsequently.

The equilibrium of this model is based on a New Keynesian New Open Economy Model (NOEM), which posits a number of relationships that permit the macroeconomic equilibrium to be identified. The first is that aggregate demand in reduced form can be written as the sum of autonomous private spending, $\bar{A} - ar$, government expenditure G, and the external balance B:

$$Y = \bar{A} - ar + G + B(q,Y)$$

This is effectively the same as the national income identity, but private spending is now a function of the interest rate, r; q is the real exchange rate.

The second relationship is the *external balance equilibrium schedule*:

$$B(q,Y) = X\,(q,Y^*) - qM(q,Y)$$

where q is defined as the real exchange rate in competitiveness terms (that is, unit labor costs in manufacturing). This shows that the external balance depends on the real exchange rate and domestic demand. The Marshall Lerner condition, implying that a real appreciation of the currency worsens the external balance, is realistically assumed to hold.[3]

The next equation establishes that wages are bargained and that an increase in economic activity increases the bargaining power of labor—the *real wage bargaining condition*:

$$w = w^B(Y),\ w^{B'} > 0$$

But though wages are set through bargaining, it is also true that firms set wages through their pricing behavior, so the wage is also equal to the price-determined wage. Because a real depreciation raises the real cost of imports and hence reduces the real wage, the price-determined wage is a rising function of the real exchange rate:

$$w = w^P(q),\ w^{P'} < 0$$

In equilibrium, the bargained and price-determined wage must be identical:

$$w^B(Y) = w^P(q) = w,$$

which is the set of combinations of Y and q that generate stable inflation, where real wage demands made in the labor market are equal to real wages implied by pricing behavior of companies; a real depreciation requires a fall in Y for stable inflation; thus a real depreciation cutting the price-determined real wages is consistent with stable inflation only if there is a corresponding fall in economic activity levels reducing the bargaining power of labor in a corresponding way.

Finally, the model assumes an *uncovered interest parity condition*, which requires the difference between the domestic and world short-term interest rates to be equal to the expected depreciation of the currency, $q^E - q$ (expressed in real terms here).

The implication of the New Keynesian NOEM is that stable trade deficits and surpluses are possible when the macroeconomic authority follows an accepted inflation target strategy, the necessary condition. In turn, whether the external balance is in surplus or deficit depends on how fiscally conservative the macroeconomic regime is relative to other countries, and on the degree of real wage restraint. High real wage restraint is implied by, among other things, conservative central banks, so that conservatism of monetary and fiscal policy then increases the likelihood of external surplus. We can show this with some simple diagrams, implied by the relationships outlined.

The equilibrium is defined by $q^E - q$ implying $r = r^*$; the stable inflation condition $w^B(Y) = w^P(q) = w$; and the aggregate demand schedule $Y = \bar{A} - ar + G + B(q)$. With $r = r^*$, the aggregate demand equation becomes $Y = \bar{A} - ar^* + G + B(q,Y)$, and we have two conditions to determine the equilibrium values of q and Y. The aggregate demand condition with $r = r^*$ is a downward sloping line in (q,Y) space, with a depreciation of the real exchange rate increasing aggregate demand; the stable inflation condition is an upward sloping line with an increase in Y pushing up the real wage and forcing an appreciation of the real exchange as domestic prices rise relative to the world price.

This equilibrium is shown in figure 2.1.

In equilibrium we have to be on the AD schedule with $r = r^*$. If $r \neq r^*$, then the model is inconsistent with rational expectations in the financial markets. If we are not on the AD schedule. then we have either rationing or businesses unable to sell what they produce. The requirement of the stable inflation line speaks for itself. An interesting and important aspect of medium-term equilibrium in these NOEM models is that changes in fiscal policy or private autonomous expenditure shift the AD schedule and hence the equilibrium.

Figure 2.1   Medium-Term Equilibrium
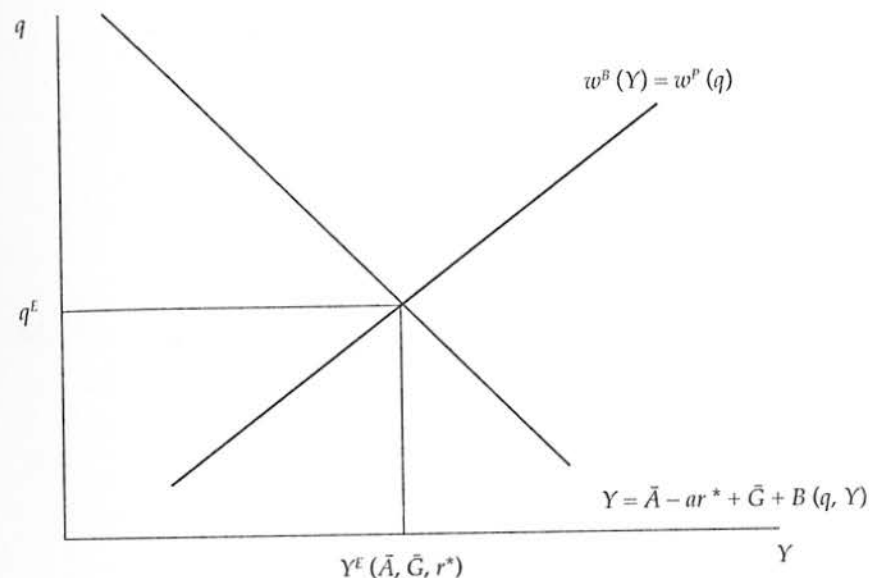
Source: Authors' calculation.

Figure 2.2 introduces the external balance schedule into the diagrammatic apparatus. Above the EB schedule, the economy is in deficit: take any point on EB and holding q constant, an increase in Y increases imports and hence moves the economy into deficit; likewise holding Y constant an appreciation of the exchange rate worsens the external balance via the Marshall-Lerner condition. Vice versa, we have a surplus below the EB schedule. A key element in the diagram is that the EB schedule is always flatter than the AD schedule: a depreciation increases income via its effect on aggregate demand by less than would be needed to increase imports by enough to restore the external balance to zero.

The only feasible equilibrium in figure 2.2 is c, where the AD and $w^B w^P$ schedules intersect. At a, inflation rates are not stable (they are falling); at b, we are off the AD schedule (there is rationing). The economy can always in principle be restored to external balance, but that requires a shift in one or more of the three schedules.

The economy always has to be at a point such as c in medium-term equilibrium, but where c is depends on government policy. If such fiscal and monetary policies are common knowledge, financial agents can ratio-

Figure 2.2   The External Balance
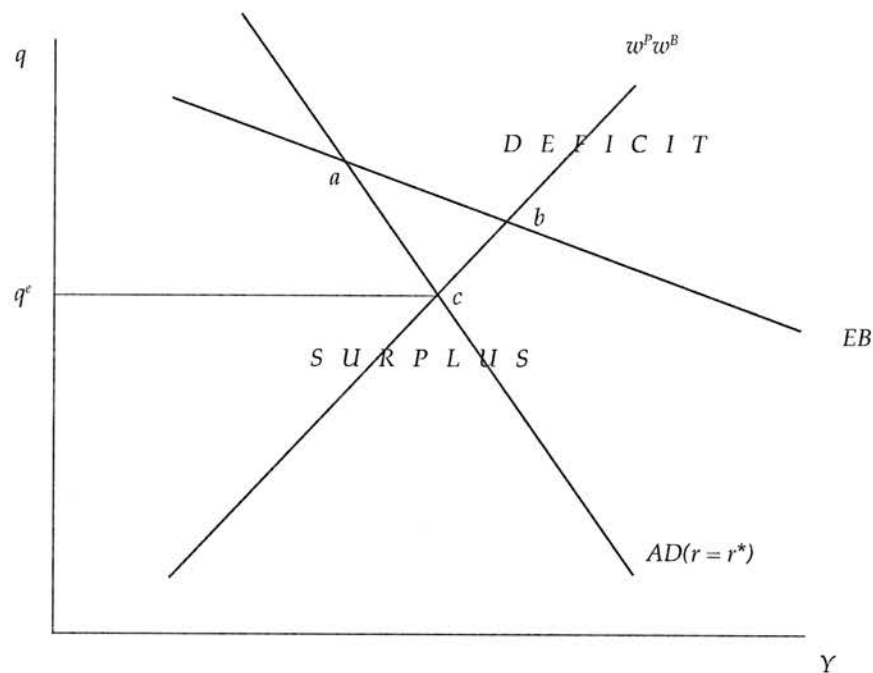
Source: Authors' calculation.

nally work out the value of q in equilibrium. If the policy rule is inflation targeting, and not the exchange rate, then the Central Bank has no instruments at its disposal to shift the equilibrium. It has to make sure, through short-term movements in the rate of interest (its only "permitted" instrument in normal times), that the economy is on the stable inflation $w^B w^P$ line, and at the target inflation rate; we will see how this is done. If the economy is small and open, as is for the moment assumed, the rate of interest in equilibrium is pinned down to the world rate of interest r^* that it takes as given (we loosen this assumption momentarily, but doing so does not change the basic argument). The central bank cannot shift the AD schedule given $r = r^*$ in equilibrium. $\bar{A}$, the autonomous expenditure of the domestic private sector is taken as given in equilibrium by the central bank; the central bank will of course engineer an adjustment to the economy in the short to medium term in response to an increase in $\bar{A}$, and this will result in an appreciated exchange rate in equilibrium. It is not the central bank that brings about the equilibrium appreciation—that hap-

Figure 2.3   Building Up a Surplus
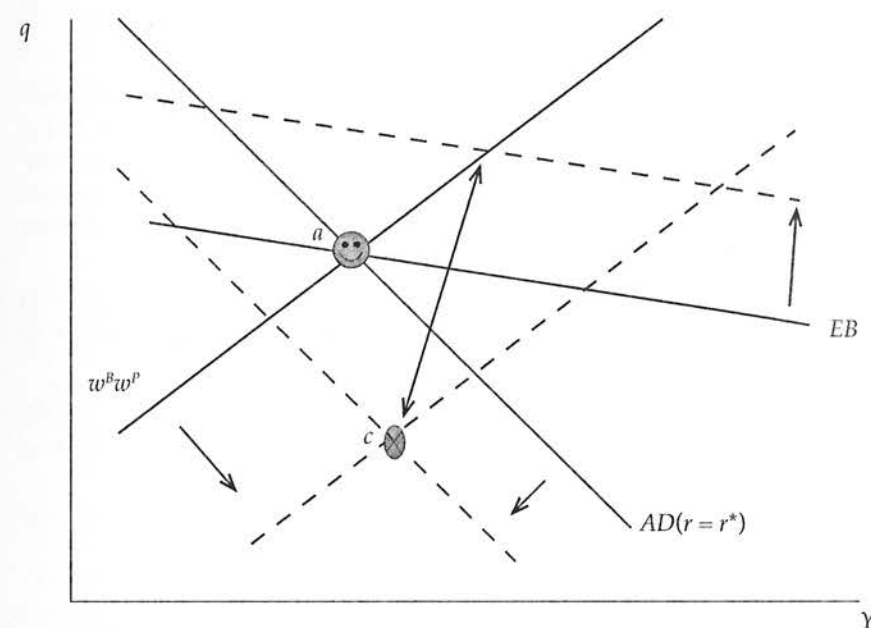
Source: Authors' calculation.

pens anyway. Nor can the central bank shift the $w^B w^P$ line, though that will vary with its conservatism preference, β, as we have seen. More generally, the rules of the game of inflation targeting do not allow targeting the exchange rate (except under exceptional circumstances), do not say anything about fiscal policy (especially if public sector deficits and debt are held in order), and simply require the central bank to be on the $w^B w^P$ line at the target rate of inflation in equilibrium.

Thus the real exchange rate is given in the equilibrium defined by c. The central bank takes the parameters of the $w^B w^P$ and the $AD(r = r^*)$ schedules as given. It accepts the consequence for the external balance of the economy in medium-term equilibrium. This is key for our argument because if the central bank and the fiscal authorities in export-oriented economies choose conservative policies to induce wage restraint and exports in the context of coordinated bargaining and high investment in skills, the equilibrium will lead to a surplus on the external balance. The logic is illustrated in figure 2.3.

In figure 2.3, a represents an equilibrium in which the external balance

is zero. There are happily no global imbalances at *a*. Now we see how the institutional factors shift each of the three schedules toward a growing export surplus.

1. Real wage restraint shifts the $w^B w^P$ and the *AD* schedules. The $w^B w^P$ schedule shifts down as a result of the bargained real wage being lower at each level of output. The *AD* schedule shifts down in a deflationary direction as a consequence of a reduction in real household income from earnings relative to profits, the former implying a bigger reduction in consumption than the latter.

2. Skill formation shifts the *EB* schedule up as an increase in exports is permitted. Wage restraint comes into the *EB* schedule indirectly through the effect of wage restraint on the real exchange rate.

3. Finally, a higher level of private precautionary savings and perhaps restrictive fiscal policy directly also shift the *AD* schedule down.

The export-oriented economy moves then from *a* to *c*. The export surplus is shown by the double-arrowed dashed line.

What this indicates is that the net effects of parameter shifts, each individually justified in relation to exports, end up by producing an export surplus. The reverse logic holds for liberal economies because the key concern in an economy without coordinated bargaining or heavy investment in skills is to maintain the highest possible aggregate demand consistent with stable prices. This leads to a deficit on the external balance. With two blocks of countries, one running surpluses and one running deficits, surplus capital flows toward the deficit countries. This ensures the median-term persistence of the system, but it is also an important element in understanding the concentration of financial assets in countries with an emphasis on investment in risky assets.

These arguments do not depend on the small country assumption. Take a world of two large economies, and we can write down the four equations defining the equilibria in the two economies:

$$Y_L = \bar{A}_L - ar^* + \bar{G}_L - B(q)$$
$$Y_{EO} = \bar{A}_{EO} - ar^* + \bar{G}_{EO} + B(q)$$
$$w^B(Y_L) = w^P(q)$$
$$w^B(Y_{EO}) = w^P(q^{-1})$$

If we substitute out for Y_L and Y_{EO}, which we can do uniquely, we have two equations in the two unknowns r^* and q. In very large economies, it is

appropriate to assume a unique equilibrium output or unemployment rate, that is, that the $w^B w^P$ stable inflation schedules are vertical (vertical Phillips curve). On that basis, adding the two *AD* conditions, we can see that r^* is determined by the world balance of the exogenous components of net public and private savings:

$$r^* = \frac{1}{2a}[(\bar{A}_L + \bar{G}_L - Y_L^e) + (\bar{A}_{EO} + \bar{G}_{EO} - Y_{EO}^e)]$$

Given that we were looking at a low real rate interest through the 2000s, this is then consistent with the view that net exogenous savings from the export-oriented countries drove down real interest rates. The real exchange rate between the two blocs is then given by the value of *q*, which generates a surplus equal to the difference between exogenous net savings in the export-oriented and those in the liberal bloc.

$$2B(q) = (Y_{EO}^e - \bar{A}_{EO} - \bar{G}_{EO}) - (Y_L^e - \bar{A}_L - \bar{G}_L)$$

Again, there is no mechanism in this system of equations to prevent one block running an external surplus equal to the deficit of the other bloc.

What we have shown is that it is perfectly consistent, within the rules of the game of the inflation-targeting regime, for economies to run external surpluses (and deficits) in medium-term equilibria. The inflation-targeting regime is of interest in part because it is not based on an international agreement. There are therefore no explicit or legal rules of the game at the supra national level, apart from the eurozone, although typically quite detailed national legal rules govern the behavior of individual national central banks. Our argument is that the large advanced economies were not prepared to operate on the basis of any set of rules that penalized either surpluses or deficits; and therefore no such regime emerged. This does not mean that there are no accepted rules: a basic rule is that central banks use short-term interest rates to bring inflation into equality with target inflation. No rules about fiscal policy exist, outside the Maastricht rules for the eurozone; neither the United States nor the United Kingdom believes other countries could credibly prevent them from using expansionary fiscal policy; nor do European export-oriented economies accept that they be required to reflate their economies or use more expansionary fiscal policies; certainly a country that pursues a conservative fiscal policy in terms of the public-sector deficit and debt cannot be forced to change it within the current regime.

Figure 2.4   China and a Low Real Exchange Rate Target
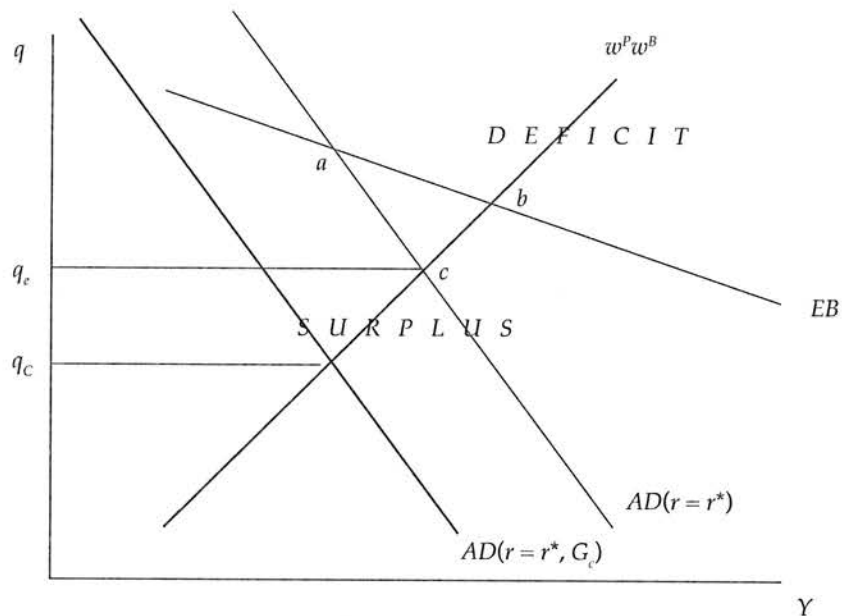
Source: Authors' calculation.

Thus we conclude that inflation targeting is a nation-based system that allows two very different types of advanced economies the freedom they each want to run surpluses and deficits. However problematic this is in the particular system of financial deregulation developed over the past two decades, it is unlikely that agreement on macroeconomic management will be international if our argument about government goals is correct.

China does not adhere to the accepted rules because Chinese authorities appear to wish to maintain a particular real exchange rate, say q_C, in figure 2.4. Although the institutional conditions leading to external surpluses in other export-oriented economies are missing, by targeting a low real exchange rate China has exacerbated the global imbalance problem.

To understand this, assume that q_C is believed by the financial operators, because they believe that the Chinese central bank is ready to enforce it. But it will be credible only if it corresponds to the intersection of the aggregate demand and the stable inflation schedule $w^B w^P$. In effect, given

$w^B w^P$, such correspondence requires sufficiently reduced aggregate demand—shown here by $AD(G_c)$—if inflationary pressures are to be avoided. Thus financial markets will have to take a view of the likelihood that China will adopt sufficiently demand-restraining measures.

The wider question is whether the maintenance of a real exchange rate target, even if only implicit, is consistent with the wider rules of the game. The United States believes it is not. And, at a certain stage, financial markets may decide that Chinese exchange rate policies are unsustainable. In the medium term, however, the Chinese real exchange rate is maintained at a stable inflation rate and a stable output or growth rate because it is consistent with the intersection of the $w^B w^P$ and the aggregate demand curve. The former guarantees stable inflation and the latter stable output-growth. Ultimately, then, the underlying real exchange rate depends on the operation (control) of labor markets and of an appropriate fiscal policy to keep aggregate demand at the right level.

In principle, the Chinese government can switch from real exchange rate targeting to inflation targeting. And it can de facto maintain a low real exchange rate at least within broad limits by a sufficiently tough fiscal policy. It is plausible that the Chinese government believes that there are positive externalities from export-led growth: this has been the lesson of the most readily available models, South Korea and Taiwan. More speculatively, export-led growth may be the most effective driver of the systems of education and training and of technology transfer and ultimately innovation, and key to relatively egalitarian growth in a developing country where government remains powerful. Thus it may be useful to think of China as not fundamentally different in its basic motivations from the advanced export-oriented nations—at least from a longer-term perspective.

To summarize, the effects in the export-oriented nations of labor market institutions on monetary and fiscal policy have generated external surpluses. These have been reinforced by the general operation of export-oriented systems of training and technology transfer, and have been quite consistent with inflation targeting. This is not to say that the surplus is a policy goal: the goal is to promote exports and the high value-added sectors that in one form or another feed into the export sectors, with their attendant externalities.

POLITICAL UNDERPINNINGS OF THE IMBALANCE EQUILIBRIUM

If the persistent imbalance is a cause of the current crisis, why do we not—leaving aside China for the moment—see attempts to reform the current system toward a balanced trade regime? Such a shift would involve ex-

port-oriented economies adopting a more accommodating macroeconomic regime, and liberal countries adopting a more restrictive regime. The reason this does not happen, we argue, is that it is inconsistent with the domestic political coalitions that sustain the current policies in the two types of economies. We base our argument on Iversen and Soskice (2010).

Consider first the export-oriented economies. Because the most productive and skill-intensive firms are concentrated in the export sector—as implied by the now universally accepted Melitz model of trade—a large export sector goes together with high investment in public training so that the supply of skilled workers will meet the demand. This in turn requires that unions in the export sector hold down their wages to allow for newly trained workers to be priced into jobs, and a key mechanism in ensuring this, as we have argued, is a nonaccommodating macroeconomic regime.

Assume now that policies become more accommodating in order to eliminate the trade surplus. This leads to a decline in the demand for skilled workers, so if the government continues to train at the previous level, there will be redundancies among skilled workers. The government would not want that, of course, but the alternative of reducing training intensity runs up against the interests of two very different constituencies. First, and most obvious, export-oriented firms will be opposed because they would face an increase in labor costs and will have to scale back their operations. Second, the relative supply of low-skilled workers will rise, which will cause a corresponding decline in their relative wages. Although this will be somewhat compensated for by a higher real exchange rate and cheaper imports, the compensation is less than 100 percent, and much less in large countries. From this it follows that low-skilled workers will block lower funding for training if they are represented by a party in government. Insofar as PR electoral systems—which all export-oriented countries in Europe adopted in the early twentieth century—produce more center-left governments, it would be hard for such governments to agree to a balanced trade international rule. This would also be true of center-right governments in these export-oriented countries, since the interests of export sectors dominate business and employer organizations.

Now consider the situation from the perspective of liberal countries. Because wage-setting is decentralized, governments in liberal countries cannot induce restraint through nonaccommodating macroeconomic policies. Such policies can instead affect demand only by reducing government spending and, if the economy is large, by raising interest rates. This will lead to lower wages, which in turn boosts exports and reduces the real exchange rate, cutting domestic demand. Both skilled and semi-skilled workers would both be worse off under these policies, except if the government substantially boosted subsidies for training and thereby reduced the supply of low-skilled workers. But in majoritarian political sys-

Table 2.2 Game Theoretic Context

		Export-Oriented Bloc			
		Balanced Trade		Fiscal Conservatism	
Liberal bloc	Balanced trade	Medium	Medium	Low	High
	Fiscal accommodation	High	Low	High—C	High—C

Source: Authors' compilation.
Note: Entries are the payoffs to the liberal and export-oriented blocs, respectively. "C" means high risk of a crisis.

tems, which are linked historically to liberal economic systems, the median voter is likely to be a skilled worker and would not support such a policy. Hence, governments in liberal countries will also not see it in their interest to back a balanced trade international regime.

It might be useful to think of the current nation-based macroeconomic management system in game theoretic terms. Readers may find it useful to see it as a prisoners' dilemma (PD) type game: each bloc can choose balanced trade (as the cooperative strategy), fiscal conservatism or fiscal accommodation being the defection strategies of the export-oriented and the liberal blocs respectively; the equilibrium defect-defect outcome is Pareto-inferior for the dominant political coalitions in the two blocs of economies on account of the significant probability that it leads to financial crisis (see table 2.2).

For this game to be a PD, make the (provisional) assumption that High—C < Medium. Given that assumption the current international regime is Pareto-inferior to a regime of balanced trade. To move to balanced trade requires some way of reaching an agreement whereby the losers are compensated by the winners of a new regime. Two major problems are evident.

The first is that, quite apart from the difficulty of writing an appropriate enforceable contract, analogous to Bretton Woods, it is unclear who the winners from a more stable international regime would be—whether it is really the dominant political coalitions who lose when the current system leads to major crises like the one we are in now. The crisis cost for the dominant political coalitions may be much less than the long-term costs for society as a whole. If the C for the political coalitions is such that, for them, High—C > Medium, then no balanced trade agreement is possible because they are the coalitions with the political power to make such an agreement.

The second problem for an international balanced trade agreement is different. Politicians in the liberal bloc believe that the likelihood of a fu-

ture crisis can be tackled by changing the financial rules of the game in relatively small ways, most notably by more careful monitoring of the effective leverage ratios of HLFIs, and in particular those who pose a systemic risk. And the dominant political coalitions in the export-oriented economies also believe that changing the financial rules is preferable to adopting a more relaxed attitude to fiscal policy; indeed the latter is close to anathema for them. Financial rule-changing may be over-optimistic as a way of reducing the probability of future crises under nation-based inflation targeting, but it suggests a more attractive route to both parties than trying to work out a balanced trade agreement.

CONCLUSION

We have tried to put the crisis in the context of the relationship between the dominant political coalitions of advanced nation states and modern capitalism. We take as our starting point that the crisis was generated by the conjoint failure of two of the key regulatory systems that govern the economy: financial regulation and macroeconomic regulation. The former led to dangerously high leverage of the large investment banks in Wall Street and the City of London but not taking account of their system-threatening interrelationships. The latter allowed global imbalances to build up that fuelled the high leverage and stimulated the demand for risky assets in the United States and the United Kingdom. Although the principles of both regulatory systems are accepted through the advanced world, their detailed operation is at the national level.

Our contention is that the governments of advanced nation states attach high importance to the success of those high value-added sectors in which—along varieties of capitalism lines—they have comparative institutional advantages. For the United Kingdom and the United States, the innovative financial sector was and is of great importance. Both governments—independent of their partisan affiliations—were increasingly committed to light touch regulation and giving wide latitude to choice of financial activity areas. This was not primarily because of the political influence of the financial sector. It is of course true that large financial institutions were closely politically involved in the United States, given the operation of Congress and its agencies as well as relatively loose party discipline, but they were not politically involved in the United Kingdom; indeed, Thatcher's initial Big Bang in 1986 was followed enthusiastically by Blair and Brown. For CMEs, the export sectors and the sectors that supported them were the high value-added sectors, and these nations were opposed to using domestic demand through fiscal policy to reduce external surpluses because it would have meant real appreciation in medium-

term equilibrium with inflation targeting, and hence damaging directly or indirectly to exports, as explained earlier.

From our perspective of modern capitalism and the governments of advanced nation states, it is difficult to see governments in either group of nations changing their positions on these regulatory systems fundamentally, especially as the crisis recedes over time. The pre-crisis regulatory systems remain today very attractive to both groups of governments. Because change will only come about in the modern post-hegemonic world if major governments agree, major change is unlikely.

Does this mean that governments are unconcerned about a future crisis? It is true that policy responses, even if uncoordinated, have so far been greatly more successful in response to the recent crisis than they were in the 1930s. This is partly due to monetary policy and discretionary fiscal policy, partly to central banks and governments intervening as lenders of last resort to a range of institutions, partly to quantitative easing, and in wide measure especially in the export-oriented economies to the existence of an effective welfare state. Governments have less to fear from another massive crisis than they might have thought based on the experience of the 1930s. But we are not proposing a theory of endemic crisis. If it was really clear that a continuation of broadly similar regulatory systems would lead to crisis, then doubtless agreement to change would have been reached, as it was in the 1930s. But a great deal has been learned from the crisis, in particular about why it developed. The reason now accepted by many economists is excessive leverage cycles of the large investment banks, and inadequate tools to monitor the systemically threatening implications of this, as we saw earlier. Part of the answer lies in requiring financial institutions to build up capital, which will be embodied in some form in Basel 3. More important will likely be rules governing leverage cycles and monitoring of their systemic implications. In both respects, national regulatory interpretation of rules and innovative practices will be decisive.

Whatever our personal views, it is unlikely that the U.K. or the U.S. governments will overly constrain the innovative activities of their financial systems, or that export-oriented economies will stimulate domestic demand to reduce global imbalances. But it is likely that, just as macroeconomics is today quite different as a result of the lessons of the Great Crash, so lessons have been learned about the operation of the financial system that may limit the dangers of a future crisis.

NOTES

1. Not technically insurance because the insuree did not need to own the asset.
2. If we add income to domestic residents from abroad (profits, dividends, and

interest) to both sides, the LHS is now the current account surplus and Y is redefined as GNP.

3. Note that we are defining q as the intuitive way, the inverse of the standard economics definition.

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Chapter 3 | Multilateralism Reborn? International Cooperation and the Global Financial Crisis

Eric Helleiner

POLICYMAKERS HAVE CONGRATULATED themselves for the cooperative ways in which they responded to the 2007 to 2009 global financial crisis. States worked together to manage the crisis through activities such as macroeconomic stimulus programs, supporting markets and firms in distress, enhancing the lending capacity of official international financial institutions, and restraining protectionism. Cooperation of this kind is credited with helping to prevent the crisis from becoming as severe as that in the early 1930s when international cooperation broke down. As International Monetary Fund (IMF) managing director Dominique Strauss-Kahn argued in the spring of 2010, "during the crisis, unprecedented cooperation allowed us to avert another Great Depression."

Particular praise has been given to the new G20 leaders' forum for its role in supporting various cooperative crisis management activities. As French President Nicolas Sarkozy put it in an August 2010 speech, the G20 "enabled the main economic powers to successfully weather the most severe crisis since the 1930s." These sentiments were echoed a few months later by the head of the European Commission, José Manuel Barroso, who suggested that the G20 had "prevented the boat from sinking" (quoted in Alan Beattie and Christian Oliver, "US Hits at Greenspan Comments on Dollar," *Financial Times*, November 12, 2010). Alongside its crisis management activities, the G20 has also been lauded for launching ambitious international regulatory reforms in the financial sector to prevent future cri-