

Reforming finance for more and better jobs



Main findings

- Despite massive support to financial institutions in the wake of the crisis, lending conditions remain tight for both households and enterprises – especially small ones – in the countries where the crisis originated. This situation is affecting investment and hiring decisions, delaying recovery.
- The chapter finds that tight lending conditions reflect two factors. First, some financial institutions need to repair their balance sheets and therefore are less able to provide credit to the real economy than would be the case in normal conditions. Second, only few of the reforms of the financial system which were announced by the G20 have been implemented. Reforms of the financial system need to address i) excessive market volatility, ii) lack of market transparency and of secure access to finance for actors in the real economy, and iii) irresponsible risk-taking on the part of financial actors. Such reforms need to be implemented at both domestic and international levels in order to avoid regulatory arbitrage across jurisdictions, which would weaken any reform efforts implemented unilaterally. The chapter shows that failure to improve regulation along these lines will affect job creation, while also complicating the achievement of balanced growth – which, as shown in Chapter 4, is crucial for a successful exit from the crisis.
- In particular, a tax on financial activities would help reduce excessive risk taking and promote incentives for the financial system to operate for the real economy. The revenues from such a tax could also be used as a buffer against future financial crises.
- Financial market reforms might lead to short-term adjustment problems. Over the longer term, however, properly regulated financial markets with an appropriate balance between domestic and international regulatory changes will

support both job creation and job stability. The chapter finds that, five years after implementation of reforms, employment would be almost 1 per cent higher in advanced economies than in the absence of reforms.

- The possible short-term adjustment costs of financial reforms, combined with strong resistance to announced measures by the financial industry, partly explain the slow action in this area. In addition, the economic recovery – modest as it may be – complicates the task for large-scale financial sector reforms as it relieves policy-makers and regulators of the sense of urgency. High levels of public debt and the outlook of more difficult financial sector conditions may also weaken the incentives to implement any regulation that could raise borrowing costs, including for governments (see Chapter 3). Finally, many reform proposals require at least some degree of international coordination in order to avoid regulatory arbitrage by financial actors. Therefore, for financial reform to benefit the real economy, further coordinated action is crucial. Indeed, failure to reform the international financial system will delay employment recovery.

Introduction¹

The pressure on finance remains strong but so far reform progress has been limited. In July 2010, a resolution prepared by the Obama Administration to tighten control of the financial sector was passed by Congress. Meanwhile, the European Commission has prepared proposals for a banking activity tax to fund a stabilization pool and to strengthen oversight of financial market activities. Even international organizations such as the International Monetary Fund (IMF) are advocating stricter regulation of the financial industry. At the same time, however, political resistance to reform remains strong. The reform resolution did make it through the US Senate, but only after several attempts and in a heavily modified form, and the Toronto G20 meeting could not agree on any form of stricter regulation and resisted attempts to set up banking taxes to make the sector pay for the clean-up costs of the crisis. Even in Europe, where policy-makers typically are more favourable to regulation, reforms have touched only side issues such as legislation to limit or tax bonus pay. On major issues such as restrictions on certain financial instruments, however, coordination even at the European level has so far been unsuccessful.

The current international stalemate on financial regulation does not bode well for more ambitious reforms. A new framework that supports both financial stability and economic dynamism is, however, as necessary as ever before (Torres, 2010). Public debt is mounting fast, potentially drying up capital markets for private investors over the longer term, especially in emerging countries. Accommodative monetary policy is, for the moment, obscuring the true long-term cost of the crisis for the real economy. As soon as economic activity has recovered, however, interest rates will reflect heightened sovereign risk premia and the excessive build-up of public debt more widely (see Chapter 3). Financial actors will, therefore, be

1. The author acknowledges valuable research assistance by Ugochukwu Agu (IILS). He also would like to thank colleagues from the Institute, participants at the Forum de la Régulation, Paris, December 2009, and Sandra Lawson, Vice President at the Global Market Institute at Goldman Sachs for very insightful discussions.

called upon to mobilize new sources of savings across the globe and fit them into the international financial system to provide funds for the real economy. However, the state of the economy is still far from good. Labour markets around the world are in shambles and world trade has not yet fully recovered from the losses incurred in 2008–09.

A simple return to normalcy may, therefore, not be enough: confidence in the current regulatory framework has suffered. As a result precautionary savings are likely to go up, restricting a more dynamic recovery. But higher growth is essential if countries want to address their public debt crises and return income and employment to the levels observed prior to the Lehman Brothers bankruptcy. Keeping financial markets unreformed is not a viable option. Nevertheless, national regulators and policy-makers cannot agree on the best road to take.

This chapter offers a new view on the debates surrounding financial market reform. In particular, the chapter argues that even though they may be desirable, many of the currently discussed reform options may actually never see the light of day due to political resistance to change. This implies that policy-makers need to be prepared for different reform scenarios, depending on whether or not national and international regulatory efforts can be coordinated. In particular, the chapter argues that in between the two extremes of fully reformed and fully unreformed financial markets, two other scenarios might arise, whereby either only the domestic financial sector or only international capital flows undergo some regulatory reforms. These four scenarios are discussed from the point of view of their consequences for the real economy, in particular for the labour market.

A. A bumpy recovery for financial markets

Financial stress has eased off after its heights in 2008 ...

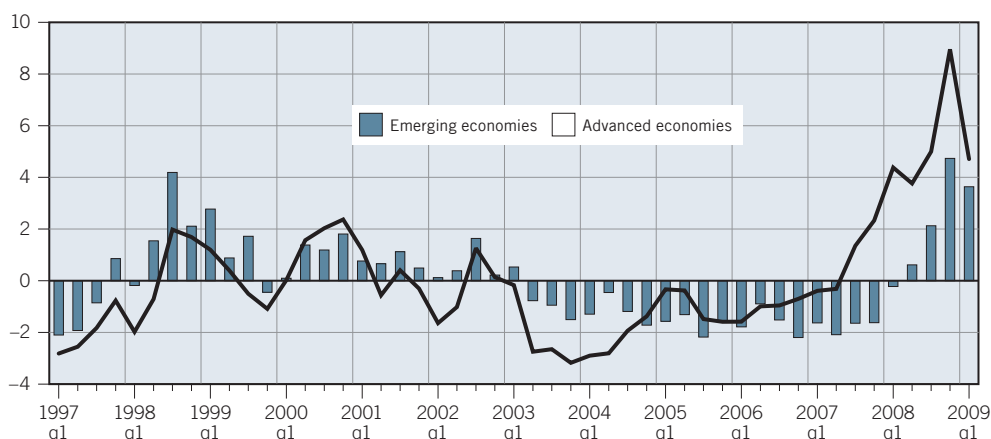
Financial systems in advanced countries came close to a breakdown during the final quarter of 2008, following the bankruptcy of the US investment bank Lehman Brothers. Financial stress increased substantially as inter-bank lending dried up, leaving the banking sector with little to lend out to non-financial firms (see figure 5.1). The banking sector in many OECD countries saw a near collapse of their major banks as foul credits from the US sub-prime housing markets infected balance sheets of major international banks around the world (Monnin and Jokipii, 2010). Central banks such as the Federal Reserve and the European Central Bank were quick to react to this severing of liquidity conditions by extending their lending facilities, despite the environment of a general lack of trust among banks and the difficulties of evaluating certain financial products in the absence of properly functioning financial markets. Contagion effects due to the spillover of loss of confidence worsened financial stress in emerging markets as well, albeit not to the same extent.

...helping to improve lending standards in advanced countries...

As a result of these abnormal levels of financial sector stress, credit started to contract in advanced economies from the second half of 2009 onwards. While this trend has not yet been reversed, credit contraction has slowed down substantially since the beginning of 2010. Nevertheless, the deleveraging process is expected to

101

Figure 5.1 Financial stress, 1997–2009



Note: IMF Financial Stress Index data (weighted average over available countries, different indicators for advanced vs. emerging economies, 1997q1-2009q1). Higher values of the indicator stand for more stress in financial markets.

Source: Balakrishnan et al. (2009).

continue for some time to come as households and non-financial corporations will aim to reduce their levels of indebtedness. Moreover, credit developments are far from historical trends. In particular, when comparing the current recovery with the earlier cyclical downturn at the beginning of the 2000s, credit growth is lower by 5 to 10 percentage points, an indication of the depth of the impact of the crisis on the financial sector. This can partly be explained by the tightening of lending standards which can be expected to remain stricter than before the crisis due to the still highly volatile economic and financial outlook (see figure 5.2). Even after a return to more normal levels of bank lending standards, however, it will take up to nine months or longer before credit growth can be expected to resume. In addition, the high strains on international capital markets due in part to higher demand for funds from the public sector are likely to push up long-term interest rates in the coming years, even though this has not materialized yet (see also Chapter 3). This puts further pressure on the private sector to reduce its current high level of indebtedness.

...and securing a return of financial flows in emerging economies.

In emerging economies, credit conditions have not worsened to the same extent, partly due to the fact that their banking sectors were not as much interlinked with those main US banks that had been exposed to the subprime housing problems as their European counterparts. Rather, these countries have seen a rapid reduction in foreign direct investment and a massive outflow of short-term capital (see figure 5.3). With the onset of the crisis, a “flight to quality” set in that – somewhat surprisingly – attracted foreign investment back into the main financial centres in the developed economies from which the crisis emanated in the first place. International capital flows have since returned to emerging economies, but mainly in the form of short-term portfolio flows (principally as corporate bonds) and not so much via longer term foreign direct investment. This may potentially create a problem should these countries experience signs of overheating – as already seem to be the case for Brazil and China – as portfolio flows tend to experience large and rapid swings, which creates serious adverse conditions for the balance of payment stability of these countries. Moreover, bank loans with

Figure 5.2 Bank lending standards in advanced economies, 2000–2010

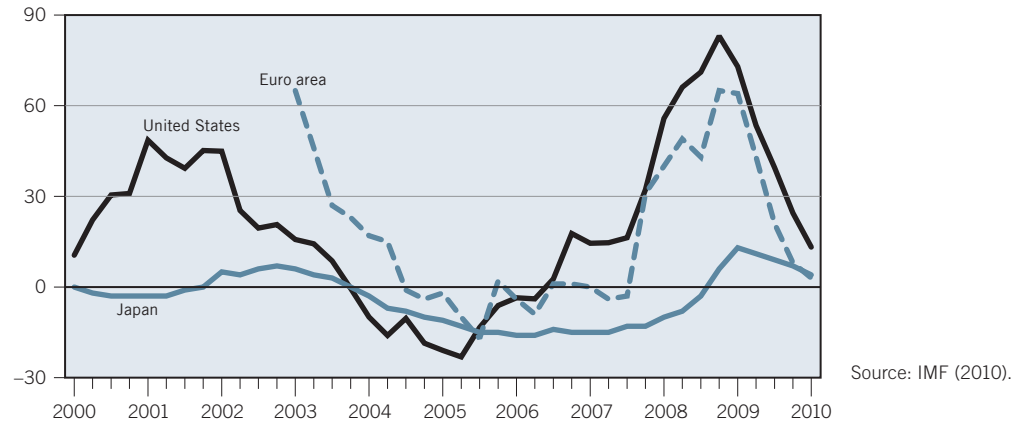
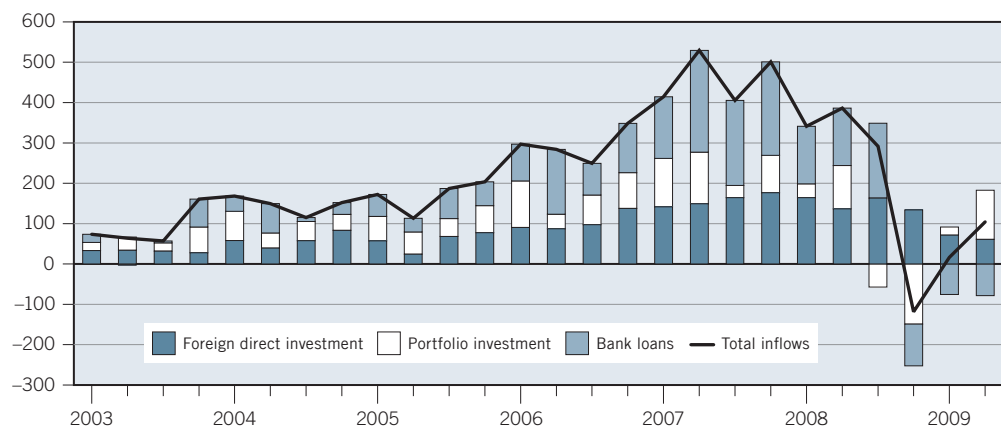


Figure 5.3 Composition of capital inflows in emerging economies (billion US\$)

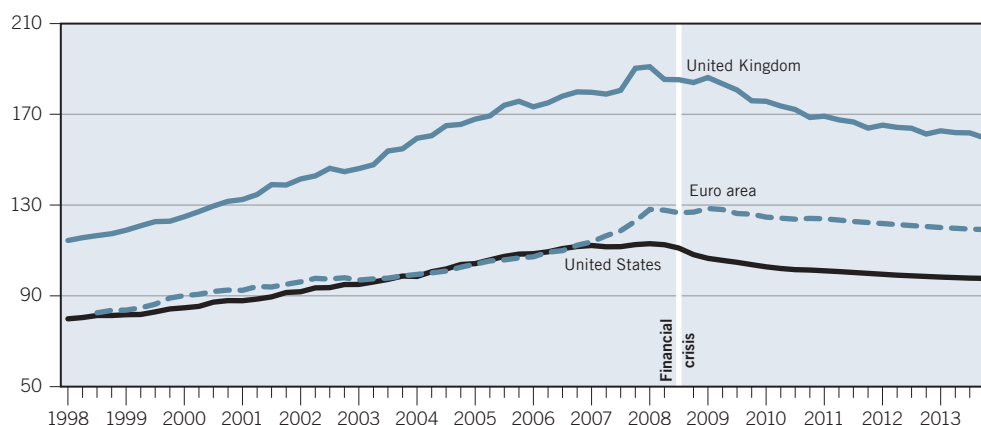


their central role in providing liquidity to otherwise credit-constrained firms and households continue to weigh on financial conditions and worsen the risk outlook for these economies.

High leverage ratios decline only gradually...

Despite the rapid slowdown in credit growth with the onset of the crisis, leverage in the private sector remains high and is only expected to level off gradually (see figure 5.4). This return to more sustainable levels of private sector debt will constitute a substantial drag on economic growth for the foreseeable future. Credit growth and the availability of financial funds for investment and consumption – in particular among credit-constrained firms and households – are widely seen as important drivers of economic development (Beck et al., 2000; Demirgüç-Kunt and Levine, 2001). Credit growing less than GDP does not, therefore, bode well for a strong recovery as it forces non-financial firms to search for internal resources for growth, making them less reactive to market conditions and lowering their potential for expansion. Also, slow increases in credit will push investors into seeking alternative credit opportunities from outside those countries that undergo such a deleveraging process, further worsening financial conditions and lowering potential growth.

Figure 5.4 Bank credit to the private sector (percentage of GDP)



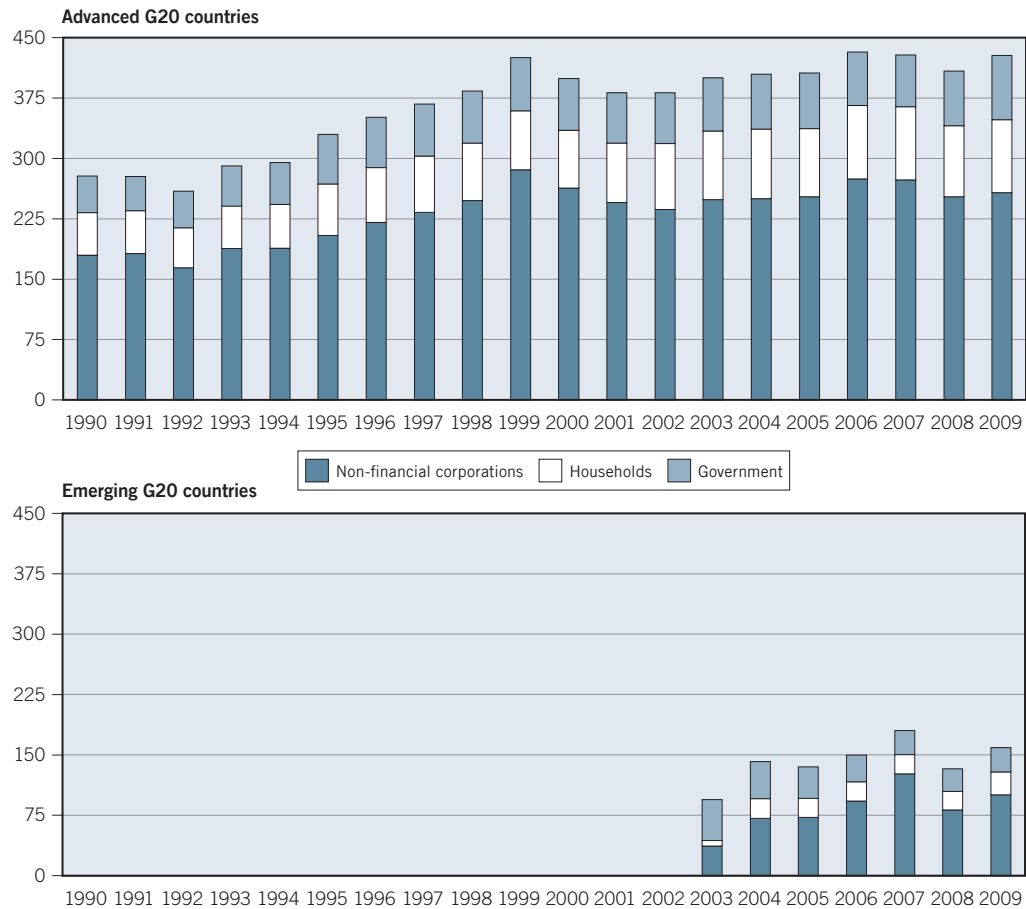
Source: IMF (2010).

...and liabilities weigh heavily on the corporate sector.

The deleveraging process strongly affects the corporate sector and hence investment and jobs. Indeed, high liability levels weigh particularly on balance sheets of non-financial firms (see figure 5.5). As interest rates are likely to increase over the medium term, this will accelerate the deleveraging process, further reducing the demand for new credit and depressing private investment and employment growth. This will have repercussions for the household sector as well. Indeed, the depressed state of the labour market will also trigger further deleveraging among households and depress private consumption. Suffering from both job loss and large amounts of (unpaid) debt, households are often enough forced to default on their credit. The interaction between a depressed labour market and more limited access to financial markets is likely to have a strong negative effect on the recovery that is caused by the financial market crisis. For instance, some observers fear that in those countries where households are suffering from depressed housing markets and therefore have lowered their personal wealth or are left with negative net equity, labour market participation decisions may be affected and geographical mobility – which would require selling the house – reduced. Similarly, non-financial firms that have a high level of leverage and a poor business outlook might prefer deleverage of their balance sheet instead of using retained earnings for new investment.

These financial market developments do not bode well for a strong recovery in jobs. Even though risk premia and market volatility have declined substantially from their crisis peaks, the deleveraging process will continue as long as the business outlook remains uncertain. Financial market reforms therefore need to restore confidence quickly, ensuring that market participants can rely on the safety of their financial investment. This will require market transparency improving and reducing incentives for excessive risk taking by financial managers. Also, financial sector regulators need to adapt their regulatory framework to improve the resilience of financial systems against shocks. Finally, as regards international capital flows, regulation (especially in emerging economies) needs to reflect the level of development of a country's domestic financial system in order to avoid rapidly changing external financing conditions. These could be caused by a high share of

Figure 5.5 Composition of liabilities in G20 countries (percentage of GDP)



Note: The figure shows weighted averages of liabilities for advanced and emerging G20 countries by main economic sectors (non-financial corporations, households and governments) for available years.

Source: Economist Intelligence Unit.

as has been the case during the Asian crisis and recently in emerging European economies. In the following section, current reform options along these lines will be presented, aimed at restoring long-term financial market stability, a precondition for a vigorous recovery in jobs and the economy.

B. Reform options for long-term financial market stability

The crisis has triggered substantial discussion on financial sector reforms, and some first initiatives have already been implemented (see table 5.1). In each case, the favoured area of reform depends on the particular theory of the origins of the crisis put forward by the reform's proponents. As such, not all reforms are desirable or feasible. Most observers acknowledge, however, that financial market regulation needs to target three main areas: (a) safeguards need to be set up against systemic risk arising from banking activities; (b) the transparency of market operations needs to improve; and (c) excessive risk-taking by financial actors needs to be diminished. The following discussion shows, however, that none of the proposals currently on the table is the silver bullet that can resolve the crisis. More importantly, certain grand-scale reforms require diverse actors at different jurisdictional

Table 5.1 Planned or existing financial market regulation (G20 countries)

	Dealing with systemic risk		Increase market transparency		Lower risk-taking		
	Financial sector oversight	Regulation of credit growth	Market information	Regulation of OTC derivatives	Regulation of financial sector activities	Managerial compensation and bonus regulation	Financial transaction/activities tax
Argentina	Market-based risk assessment	Cap on loan to deposit ratios			Planned lift of capital controls		UC ¹
Australia		N		UC ²	N	N	N ³
Brazil		Countercyclical adequacy rules			Capital controls (2% tax on inflows)		UC ^{1,4}
Canada		Cap on loan to value ratios in the mortgage market		UC ²	N	N	N
China		Countercyclical adequacy rules			Capital controls	Reform of disclosure rules for executive compensation in SOFEs	Stock trading stamp duty (0.3%)
European Union	EU-wide financial market oversight; Extension of MiFID; hedge fund certifications	Basel III recommendations	Centralized supervision of rating agencies	Standardization of products traded via CCPs	Restrictions on short-selling	Bonus linked to base compensation; max. 30% in cash	N
France		Moderate increase in regulatory capital planned	Creation of a public rating agency	UC ²	N	Surtax on bonus pay; bonus pay to be spread out over several years	Banking activity tax to finance rescue fund
Germany	Increased competencies of financial regulator (BAFIN)	Moderate increase in regulatory capital planned		UC ²	Ban on naked short selling ⁵	N	Banking surtax to compensate for crisis costs
India		Countercyclical adequacy rules			Capital controls		Securities transaction tax (0.075%)
Indonesia					Capital controls		UC
Italy				UC ²	N	Surtax on bonus compensation exceeding three times base salary	
Japan		N		UC ²		Stricter disclosure rules for executive compensation	N ⁶

Korea, Rep.	Countercyclical adequacy rules	Consumer protection agency (CPMA)	UC ²	Capital controls	
Mexico	Countercyclical adequacy rules	Consumer protection agency (CPMA)	UC ²	Ban on naked short selling No short selling permitted	N
Russian Federation	Adjustments to risk weights	Consumer protection agency (CPMA)	UC ²	Temporary ban on short selling (in 2008)	N
Saudi Arabia	UC ⁷	Consumer protection agency (CPMA)	UC ²	Temporary ban on short selling (in 2008)	N
South Africa	Tightening of leverage ratio regulation; extension to shadow banking system	Consumer protection agency; legal accountability of rating agencies	Open-market trading planned ²	Surplus on bonus pay	Stamp duty on stock market transactions (0.5%)
Turkey					
United Kingdom	Prudential Regulation Authority as part of Bank of England's financial stability oversight				
United States	Stricter banking oversight			Temporary bonus limitation (2009)	N

Note: The table presents an overview of planned or existing measures to regulate the financial market. Basel III refers to a reinforcement of the existing Basel II prudential regulation framework that is currently being negotiated at the Basel Committee on Banking Supervision of the Bank for International Settlements, including increases in regulatory capital and limits on credit growth.
N = no planned/existing measures; UC = under consideration; OTC = over-the-counter; CCP = Central-counterparty; SOFE = State-owned financial enterprises; MiFID = Markets in Financial Instruments Directive (EU Directive to harmonize regulation for financial investment services).

¹ The recently created Banco del Sur is expected to levy parts of its funds through a financial transaction cost. ² Participation in the OTC Derivatives Regulators Forum. ³ Australia had a bank debit tax for cash withdrawals between 1982 and 2002/2005. ⁴ Brazil experimented with a financial transaction tax between 1993 and 2007. ⁵ Limited to certain asset classes (ten major German financial institutions; credit default swaps on euro area sovereign debt). ⁶ Securities transaction tax abolished in 1999. ⁷ Move to a cyclical-adjusted capital adequacy rule.

Source: National sources; Barth et al. (2001).

levels to coordinate, which so far has not been successful. The following section provides an overview of the most important strands of the debate, including a discussion of potential pros and cons.

Dealing with systemic risk

The crisis has exposed the weakness of the current regulatory framework for detecting and managing systemic threats to the financial sector. Indeed, a shock originating in a small housing subsector unravelled the entire global financial system. This puts into question the capacity of the current regulatory regime to help financial markets absorb such shocks. Prudential regulation and supervision has focused almost exclusively on analysing the stability of individual banks and financial actors without taking into account the wider implications of excessive credit growth. In order to address the shortcomings of the current framework, reform proposals have looked at two interdependent issues: the size of individual banks (“too big to fail”) and their interconnectedness in the financial systems (“too interconnected to fail”).

The size of a bank may cause problems both in the run-up to a crisis and during the clean-up of the crisis. If a bank becomes too large, there may be a risk that policy-makers and regulatory authorities will do everything possible to keep the bank afloat instead of proceeding towards a bankruptcy (albeit in an orderly manner). Such a policy, however, is likely to prolong the underlying imbalance, until the problems become too large and investors and depositors run away massively from such banks. During the clean-up phase, authorities will need to proceed with extreme caution in order to prevent spillovers, which would make the crisis exit and recovery more prolonged. Typically, market dominance will be regulated through competition regulation. It may well be, however, that a bank can reach a size that threatens the stability of the financial system well before it reaches a dominant market position. In addition to stricter anti-trust regulation, therefore, proponents of reform have suggested the introduction of a tax or capital surcharge (“regulatory capital”) – which would if possible be countercyclical. Ideally, the rate of such a tax would increase with the size of the bank, thereby constituting an effective limit on the speed at which the financial firm can grow.

A related issue arises from the degree to which any particular bank is interconnected with other financial firms. Indeed, even though a bank may be large, if its operations across the financial sector and into the real economy are limited, its bankruptcy would cause only limited damage. In contrast, if a highly specialized but widely connected financial actor which is a counterparty to many deals goes bust, the damage will be widespread; this was the situation that arose when Lehman Brothers needed to file for bankruptcy in 2008. In practice, taking into account such interconnectedness would mean that regulators would care not only about the quality of a bank’s balance sheet but also its interaction with other banks through its banking network. If necessary, the regulators could adjust, for instance, the regulatory capital requirements according to such a bank’s contribution to systemic risk (Chan-Lau, 2010; Espinosa-Vega and Solé, 2010; IMF, 2010, ch. 2). A particular challenge arises in this case from the fact that most banks, especially larger ones, do not limit their activities to the national financial market but are interconnected across borders. A proper calculation of the contribution to systemic risk by each player in the market would, therefore, require taking its entire global activities and network connections into account. To the

extent that national regulators might not implement such regulation in identical ways, such stricter regulation would then simply lead to regulatory arbitrage and the shift of the most regulated activities to countries where regulation is less strict (Caprio, 2010).

Increasing market transparency

Lack of financial market transparency has been seen as one of the main reasons for overly optimistic investment decisions. In this respect, the market for customer-specific, specialized financial instruments has been singled out as being particularly opaque. The purpose of these products is to help investors hedge against certain types of market risk. Financial firms offer a variety of such products to their clients in a tailor-made manner, which are based on existing securities on the market but correspond more specifically to their needs than generic financial products.² The rapid growth of this market, however, has posed new challenges for financial market stability. Indeed, as most of the trades take place in an idiosyncratic manner, market opacity has increased, concealing the specific interconnections that exist between different market players and preventing easy liquidation of these products when investors need to restructure their portfolios. This has led to a further increase in systemic risk (IMF, 2010, ch. 3). In response, reform proposals suggest the standardization of products and the introduction of central counterparties, so-called “clearance houses”, which would act as intermediaries in the market and help to settle trades across a large number of participants. This would eliminate part of the market opacity, and would prevent contagion effects should one of the market participants go bankrupt. However, not all financial products can be protected in this way as such a clearance system would require the standardization of products, which would take away some of the attraction that these products have for certain investors. More important, however, is the fact that clearance houses themselves would need to be insured against a possible bankruptcy, a rare but significant event. Given the large amounts of funds that are involved in such institutions, supervision and regulation would need to be tight as the repercussions in the case of failure would be many times greater than has been experienced during the current crisis.

Rating agencies have played an important role in disguising the true risks taken by financial investors. Many financial products that ended up as toxic waste on banks’ balance sheets started out as being issued with the highest rating grade. For instance, Moody’s – one of the three main international rating agencies – was forced to downgrade almost 700 securities during the summer of 2008, which partly explains the rapid deterioration of financial market stability that led to the bankruptcy of Lehman Brothers. The incredulity at the rapid deterioration in ratings was followed by the question of why the ratings proved to be so essential to the resilience of financial markets. To a large extent this is related to the fact that ratings are increasingly being used by regulators in assessing the soundness of individual financial firms (Booth, 2009, ch. 11). At the same time, the current business model of rating agencies relies on the issuing firm to pay for the rating service. Together, these two elements help to explain why ratings have been systematically biased towards being optimistic, and why they proved to be so important in

2. The market is termed “over-the-counter” (OTC) in reference to the fact that most of the products are highly customer-specific and not standardized.

generating the housing boom and bust. In reaction to these deficiencies, the European Commission has suggested the imposition of external oversight for rating agencies. Alternatively, some have suggested the introduction of a public rating agency to provide a more neutral view on certain assets (in particular, sovereign bonds). In addition, stimulating increased competition by lowering the currently high entry barriers to the rating business is mentioned as one way to strengthen incentives to produce the most accurate ratings possible.

Finally, the crisis has further revealed the persistent difficulties that certain categories of market participants experience when trying to get access to proper finance, such as in particular low-income households and small and medium-sized enterprises. Indeed, it is fair to say that part of the reason for the development of a high-risk subprime market segment is the fact that certain individuals and firms could not get proper finance otherwise, despite the fact that their participation in the financial market could have been welfare-enhancing (Rajan, 2010). In an environment of limited market transparency, unscrupulous bank or mortgage institution managers benefited from lax(er) supervisory standards and an overall market opacity. This allowed them to offer mortgages to such households at unfavourable rates or against overly optimistic assumptions about future house price and income growth. As the crisis broke out, the banking sector reacted strongly in the other direction, putting up high ceilings to credit access and effectively drying up the subprime market. Hence, what started as a promising financial innovation to enhance financial inclusion ended up leaving many former homeowners bankrupt and a larger number of households and small enterprises facing even more difficult financing conditions than before the crisis. To remedy this situation, proposals have been put forward to enhance financial inclusion in order to improve the credit situation, in particular for small and medium-sized enterprises and certain categories of households. For instance, legislation recently passed in the United States includes enhanced financial consumer protection through a specialized agency. Similarly, the nine “Principles for Innovative Financial Inclusion” presented by the G20 Expert group on Financial Inclusions suggests that authorities should enhance innovative modes of access to financial services while at the same time strengthen consumer protection involving both governments and representatives from financial service providers and consumers.³

Lowering risk-taking

The shock that originated from the subprime housing market has also demonstrated the excessive inclination of market participants to take up risk. In particular, lax supervision of lending standards in the US subprime housing market and the international search for yield seem to have led financial firms to increase their risk appetite (Caballero et al., 2008a, 2008b and 2008c). To reduce the incentives to take up excessive risk, reform efforts have concentrated on capital controls, a ban or tax on certain forms of financial transaction, the regulation of banking activities and changes to the remuneration of financial managers.

A long-standing issue has been the introduction of a tax on international financial transactions (“Tobin tax”) in order to eliminate or reduce short-term (currency) speculation. The G20 has taken it up, inviting the IMF in its

3. The principles are available at: <http://canadainternational.gc.ca/g20/summit-sommet/2010/toronto-principles-toronto.aspx?lang=eng> (accessed 6. Sep. 2010).

Box 5.1 Earlier experiences with financial transaction taxes in Latin America

Several Latin American countries have experimented with particular forms of a financial transaction tax. Indeed, Argentina, Brazil, Colombia, Ecuador, Peru and Bolivarian Republic of Venezuela all introduced different forms of bank debit tax at the end of the 1980s or early 1990s. Today, only Colombia still has such a tax in place. A common feature to all the schemes was that the tax was levied on withdrawals or transfers from bank accounts, mainly checking accounts, but also savings and term accounts. Certain schemes also covered transactions arising from trading in securities and derivative products.

The stated immediate objective of these schemes was revenue generation rather than stabilization of the financial sector, and often only on a temporary basis. Some of the schemes were introduced to generate earmarked funding for particular programmes, such as the *Contribuição Provisória Sobre Movimentação Financeira* (“CPMF”) scheme in Brazil which was introduced to fund a new health-care programme. With the exception of Ecuador, however, none of the schemes generated sizeable amounts of fiscal revenues. In most cases, additional tax revenues generated by these taxes remained below 1 per cent of GDP (Coelho et al., 2001).

The potentially positive effects resulting from higher tax revenues and expansion of certain social programmes have to be set against observed direct effects on financial market development. In particular, all the schemes caused significant disintermediation, with more people carrying out their financial transactions on a cash-only basis to avoid paying the tax. In some cases, offshore facilities or holding accounts in neighbouring countries were used for tax evasion, reducing the transparency and stability of the domestic financial system. In Brazil, more complex financial products replaced the standard checking and saving accounts, thereby limiting the capacity of the CPMF scheme to raise revenue.

Pittsburgh meeting to assess the issue and make concrete suggestions on whether or not to implement such a tax against the background of earlier experiences in this area (see box 5.1). In addition, some countries proceeded to ban certain financial instruments, in particular short selling, or limited the inflow of foreign capital through capital controls. Alternatively, the IMF suggested the introduction of a financial activity tax, whereby an additional tax is levied on (excess) profits in the financial sector, with the specific purpose of limiting leverage and bank size. This idea is currently being considered by the Banco del Sur, a Latin American development bank that has recently been established. Ideally, such a tax would reflect the contribution of each individual financial firm to systemic stability. Eventually, the additional money levied from such a tax could be used to fill up a financial sector stabilization fund, which would provide liquidity in situations of financial stress without requiring the involvement of public finances. Such an additional tax seems indeed a valuable tool in limiting excessive credit growth and will allow policy makers to dispose of sufficient resources in case of a possible future crisis.

Other proposals have aimed more directly at regulating certain banking activities. In particular, the merger of commercial and investment banking activities in the United States has been seen as the root cause of heightened risk appetite of financial investors as it allowed the merged bank to use deposits (and deposit insurance) to pay for its own speculative activities (so called “proprietary trading” or “own-bank trading”). Paul Volcker, a former chairman of the US Federal Reserve, suggested that commercial banks should be banned from proprietary trading altogether (“Volcker rule”). Other proposals have focused on a stronger role for bond holders and depositors in limiting a bank’s risk appetite. In particular, the idea of a forced debt–equity swap in case a bank goes bankrupt has the potential to

force bond holders to select their portfolio more carefully and only take up those bonds for which they are willing to hold the risk. Such conditional convertibles (“CoCos”) also have the capacity to improve the equity base of a financial firm when certain assets turn out to be toxic, which should further contribute to stabilizing the banking system. Both the Volcker rule and the introduction of CoCos would constitute substantial interventions into banks’ business models and have already met stiff resistance from financial market lobbyists. In addition, it seems that at least the CoCos are not entirely free from market manipulation as the conditions under which a conversion takes place requires complex technical analysis, which would potentially make the system more opaque (Goodhart, 2010).

Finally, performance-related incentives for managers have been said to have led to excessive risk-taking by certain financial firms. Indeed, most traders now receive only a small part of their remuneration in the form of a fixed salary. Most remuneration is paid out as a bonus depending on previous performance (in general the previous year) or in the form of stock options that can be exercised after a certain delay. In particular, the short-term, backward-looking nature of many bonus systems is pushing financial managers to focus too much on short-term gains rather than on long-term sustainable profits. In reaction to these issues, reform proposals have been enacted or implemented that aim to reduce the use of high-powered incentives through bonus systems. In particular, some authorities have made it mandatory for compensation packages to include a bonus-malus system, which smoothes out yearly gains and losses over an extended period of time and allows a bonus pay-out only if it corresponds to a “sustainable” gain in bank profits.

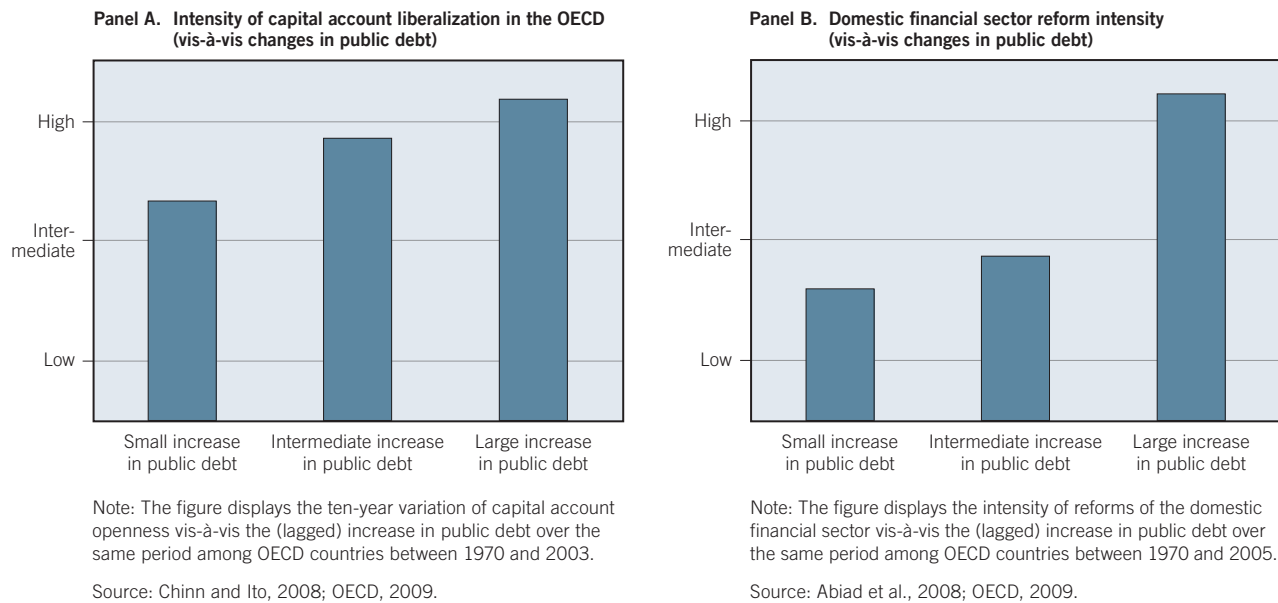
C. The future of finance: Four scenarios

Financial sector reform will depend to a large extent on political forces shaped by the economic recovery described in the opening section. Indeed, resistance to change is high as banks and financial institutions fear for their business model or their independence. First attempts to regulate compensation schemes for financial managers or introduce additional taxes in this area have already triggered countervailing measures. Similarly, the international coordination necessary for certain proposals to be implemented successfully has often been resisted by national governments, in particular those that have fared well during the financial crisis. In the following section, this chapter takes a closer look at the political economy constraints that weigh on financial sector reform and analyse four possible scenarios for the future of finance and their consequences for the real economy.

Forces shaping financial regulation

There are two main areas in which policy-makers can impose financial market reforms: domestic markets and international capital flows. One of the difficulties for policy-makers is that it might be necessary to concentrate on only one of the two areas of intervention. Whichever area policy-makers choose for intervention, however, the financial sector reform process is shaped by three forces: the economic recovery, the high level of public debt and regulatory competition between jurisdictions:

Figure 5.6 Public debt and financial market reforms



- The financial and economic recovery actually complicates the task of substantial regulatory reform of financial markets. The popular political pressure that has so far kept up might wear off as business activities resume (see also Chapter 2). The immediate sense of urgency will then recede, making policy-makers more lenient when putting forward an encompassing reform agenda. In addition, the crisis has somewhat limited the political influence of financial firms, but as the outlook improves, they will regain a stronger political voice. Finally, financial sector (re)regulation will take place in a substantially different macroeconomic environment. The risk appetite of investors has – so far – resumed only half-heartedly. Over the longer term, precautionary savings may go up as investors are re-evaluating their environment and considering investing in lower yielding but less risky assets.
- At the same time, countries and policy-makers are limited in their action by the high level of public debt that accumulated during the crisis. This will reduce their scope for action and hence the extent to which they can effectively introduce *any* kind of regulation without regard to the interests of capital owners and their own financiers. In the past, periods of rapid increase in public sector debt have often preceded periods of financial deregulation (see figure 5.6). In other words, even if it were possible to identify *ex ante* the optimal package of financial sector regulation, such a reform bundle is unlikely to be implemented as policy-makers rely heavily on financial markets to (re)finance their high and still increasingly debt levels.
- Finally, regulatory competition between jurisdictions prevents countries from implementing all of the measures deemed necessary for fear of losing out (financial sector) market share to competitors. As countries compete to attract financial firms through favourable regulatory conditions, overly stiff prudential regulation may hamper further growth of the financial sector. Highly qualified staff may consider moving to different locations with a more attractive tax and regulatory environment (for instance regarding bonus regulation). Similarly, financial firms may consider moving their activities to jurisdictions

Table 5.2 Exit scenarios from the crisis

International capital flows	Domestic financial markets	
	UNREFORMED	TIGHTENED REGULATION
UNREFORMED	Scenario I: A bumpy road ahead	Scenario III: A new compromise
TIGHTENED REGULATION	Scenario II: Brakes on globalization	Scenario IV: Major financial sector reform

Source: ILS.

where limitation on leverage and credit growth are less stringent, offering their services to clients abroad or arbitraging across different regulatory conditions through branching.

As a result of these dynamics and the different areas of policy interventions, four scenarios arise for the future of finance (see table 5.2). Essentially, reforms of the domestic financial market require different political resources and layers than those reforms targeted at international capital flows. Domestic reform can – if policy-makers wish to do so – be implemented swiftly and with little regard to what happens elsewhere. International capital flows, however, need some minimum form of international cooperation. A country might very well shelter itself to some extent from certain forms of capital flows through capital controls but only in the exceptional case of complete autarky will a country not see any foreign capital on its balance of payments. However, such relations with foreign capital markets always bring the risk of contagion from local financial crises, be it through confidence effects or more serious solvency risk. Opposing these two types of market intervention leaves us with four main scenarios, depending on whether and where countries are able to impose their policies. Notice that table 5.2 does not consider which type of regulation will be imposed. Rather it is assumed in these scenarios that whenever governments intervene, they do so in order to tighten up existing regulation and limit certain activities in the area of regulatory intervention. The differences between the scenarios then arise from the capacity of state regulators to intervene effectively.

Four scenarios for the future of finance

Scenario I. Bumpy road ahead

The first scenario assumes that States have suffered a sizeable drawback in their capacity to regulate the financial sector. Following rescue operations in the financial sector and stimulus measures to support aggregate demand, countries want to recover the fiscal space in order to be able to intervene in similar circumstances in the future. Also, a simultaneous increase in demand for funds from the fiscal authorities around the world will impact upon available liquidity on international financial markets and raise interest rates. In this scenario, therefore, the regulatory stance in financial markets is to support the future development of financial markets, rather than to restrain it. This may seem odd, given today's strong opposition of policy makers to any further financial market deregulation. However, under the influence of huge piles of public debt, policy-makers are likely to soften their current stance. Moreover, as the memory of the crisis starts to fade,

lobby groups for international investors will regain their strength and set course to consolidate the protection of foreign investment against excessive taxation or to facilitate the introduction of new financial instruments unknown today. And all this will inevitably lead to a deepening of financial market and greater international financial integration, whatever the critics believe. Other reforms currently on the table are likely to both strengthen financial market stability and improve the outlook for financial innovation, such as the introduction of clearing houses for certain financial products and further improvements to the international payment infrastructure.

Such a deepening of the financial market will have substantial consequences for the real economy. At the macroeconomic level, the liquidity-driven growth will return after a brief pause due to the crisis, and at the microeconomic level, the financial relationship will continue to be at arm's length – but even more so than in the past, and certainly in those countries that still rely heavily on more traditional banking relationships. Indeed, banking intermediation has taken a hit during the crisis and is likely to take longer to recover than direct market-based finance. As a reaction, governments may be tempted to facilitate direct access to market finance for smaller players, thereby further increasing pressure for high financial returns on these companies. It also means that investment banking is likely to return to centre stage and will tap into new markets that so far have remained underdeveloped. Taken together, under the scenario of unreformed financial markets, financial pressures on the real economy will be maintained or may even grow. Such a generalization of cost-efficiency objectives will be only consistent with pre-crisis rates of operational profits (and the underlying rate of trend productivity growth) if leverage by firms continues to increase and corporate debt continues to grow.

Despite a return to pre-crisis financial market conditions, the outlook for future macroeconomic expansion and job creation would, nevertheless, look gloomier in this scenario than prior to the crisis. Indeed, with government debt levels in advanced G20 economies being almost 40 percentage points higher than before the crisis (see Chapter 3), necessary funds for investment will become hard to get at. This is particularly true for emerging economies which have been the main driver of the global recovery so far. In addition, when financial markets remain unreformed, market sentiment and household confidence might very well be less secure than before the crisis, implying there is also an increase in precautionary savings in those countries that traditionally have been considered the consumer hub of the world. As a consequence, consumption growth might decline in those countries as well, putting further downward pressure on global growth. Finally, with financial pressure mounting further, social frictions and slow wage growth may become more widespread than before the crisis, with further adverse effects on macroeconomic dynamics. In other words, growth can only be restored if macroeconomic policies can provide a credible exit from high debt rates while at the same time restoring confidence of market participants and households in a more sustainable future growth pattern, an equation that will be difficult to balance.

Scenario II. Brakes on globalization

The second scenario sees the substantial increase in the fiscal effort of economies, especially the advanced economies, as the first step for the return of a strong State: the advance of “state capitalism” (Bremmer, 2009 and 2010). As pressure

for financial reform remains strong, its consequences may be felt even beyond the financial sector. Indeed, some observers have noted that the probability for a general re-regulation of the capitalist system has substantially increased (Zingales, 2009). The already visible tendency for a global shift in (financial) wealth and the intensive search for a scapegoat may actually trigger protectionist reflexes among leaders in advanced economies (Cohen and DeLong, 2010). In particular, governments may be tempted to react to popular agitation by cutting back on some of the liberal advancements that have been introduced over the past 20 years. In fact, governments have already started to use their new-found powers to start raising barriers to international trade, although only timidly for now. Several programmes have targeted fiscal stimulus mainly towards domestic production (e.g. “Buy America”) and certain tariffs were increased to the extent that multilateral agreements allow. Other countries have started implementing measures to curb exports in certain areas to gain competitive advantages in others.⁴ At the same time, all attempts to revive a new multilateral trade agreement – the Doha round – have remained unsuccessful so far. Thus, there is a strong and persistent risk that the massive decrease in international trade observed following the financial crisis will not be overcome soon and a sustained decline in international trade may arise. At the time of writing, world trade had not yet recovered fully to the peak level observed in mid-2008, more than two years ago. Similarly, pressure to protect domestic firms in advanced countries against an increased inflow of funds from sovereign wealth funds has been mounting and threatens to impose stronger restrictions on international investment in the future. This will have significant consequences for trade and the ability of multinational enterprises to organize their production around the world.

Moreover, persistent difficulties in obtaining funds to facilitate trade and the continuing lack of trust among trading partners regarding prefinancing of exports could lead to at least a partial shift of global production chains moving production platforms back closer to final consumers. Partly, this may also be triggered by other policies such as those related to climate change, which will be used as a pretext to impose tariffs related to energy use or carbon emissions. In general, there are good reasons to believe that in future, the producers will prefer to be closer again to their final customers in order to better respond to their needs, but using standard components (referred to as “glocalization”, see Dziemba et al., 2009). In particular, the need for an increasing service component and the possibility of offering an integrated product–service solution will push certain producers back closer to their final clients.

Finally, putting the brakes on globalization will also limit the perceived benefits of the export-led growth model. Emerging markets are likely to seek new, domestic sources of growth. Due to their larger size, some – for instance Indonesia – have already begun to promote and stimulate private consumption at the expense of an overly strong dependence on exports. Others will find a solution by joining existing free trade agreements or being ready to give up a non-negligible potential for growth. However, in view of the importance of international trade to global growth (Freund, 2009), such a return of protectionism is likely to damage the growth potential of those countries that remain heavily dependent on exports. For large, relatively closed countries and regions – such as the United States – there might be a potential for reorienting part of their imports towards

4. See, for instance, recent concerns expressed by the World Trade Organization regarding export barriers for some raw materials in China (WTO, 2010).

domestic production. Clearly, such a readjustment is likely to reduce the potential for growth and leave traces on the labour market, at least temporarily (Artus and Pastré, 2009, ch. 6). At the same time, the stronger capacity of the State to mobilize resources in order to return to more sustainable public finances might limit further crowding out of private investment. Similarly, as the global economy rebalances and the outlook for more stable growth brightens up, precautionary savings might be reduced. Both sources of domestic growth could help to some extent make up for the loss of potential growth benefits from trade.

Scenario III. A new compromise

In the third scenario States will prove powerful enough to forge a new compromise but lack the capacity to coordinate to limit or reduce financial globalization. Governments will be able to influence the evolution and dynamics of their domestic banking sector, but international financial flows – and hence the prospects for global growth – will continue to be influenced by considerations of financial return and investment opportunities in the global economy. Governments might even follow a few examples that are considered to be best practice in the field, such as the regulation of the mortgage market in Canada or the variations in regulatory capital over the business cycle that Spanish banks had to implement. On the other hand, and partly because of the lack of re-regulation of international capital flows, they are unlikely to go very far with domestic banking sector regulation or to adopt untested policies, such as a forced restructuring of the banking industry or the imposition of limits on the growth of financial firms in order to limit the size of the financial industry relative to the rest of the economy.

Financial market actors will not be able to avoid stricter regulation of national markets completely; they will be forced to show better appreciation of risk with the objective of improving and stabilizing financial funds. At the same time, financial flows will continue to benefit from free international movement, allowing the global economy to continue its previous expansion. In particular, current proposals regarding a tax on international financial exchanges will not pass the initial stage of a simple political feasibility study. Similarly, the idea of strengthening the role of some international actors – notably the IMF – in managing the international financial system will be rejected, particularly by developing countries. Indeed, these countries would see such an expansion as another takeover attempt on the part of industrialized countries and with the sole purpose of preventing or slowing the shift of economic power and international politics. At the same time, the lack of international coordination in forcing a common solution to re-regulate the financial system means that regulatory arbitrage continues to take place. This might greatly undermine the stability of the global financial system or even create an incentive for (some) national governments to show excess zeal in regulating their domestic markets, with adverse consequences for growth at home.

Nevertheless, from the perspective of macroeconomic stabilization, this scenario will probably be considered the most capable of combining the stabilization of short-term savings with the keeping in place of previous growth mechanisms. At the same time, certain socio-economic trends observed in recent decades will change only very slowly and under the direction of a proactive policy: international capital flows will continue to put downward pressure on the wage share, thus limiting the ability of States to promote more balanced growth. Moreover,

short-term financial returns will continue to dominate the distribution of international capital flows and hence the potential growth of certain countries and regions. As a consequence, restructuring of national economies towards more sustainable social and ecological growth patterns is likely to take longer under such a scenario, at least when compared with scenario II. Also, global imbalances are unlikely to dissipate soon, only the prospect of another crisis has been pushed back again thanks to strengthened prudential regulation at home. However, the extent to which such re-regulation of financial markets would be able to weather future financial innovations remains unresolved under this scenario.

Scenario IV. Major financial sector reform

The last scenario assumes that policy-makers and regulators manage a general and profound overhaul of both the domestic and international financial architecture. This implies that governments recover some of the autonomy that they have lost during the financial crisis. At the same time, such a scenario could lead to a general restructuring of the economy as governments are likely to use their newly found capacity to intervene to satisfy other policy objectives as well. In particular, the often heralded emergence of a greener economy could then be placed high on the agenda of policy-makers. More generally, such a reorientation of economic activity to other, more productive sectors – housing turned out not to be much of a driver for total factor productivity as recent estimates have made clear (Jorgenson et al. 2008) – could further widen policy space if it can promote additional resources, for instance, those that help in fiscal consolidation and economic recovery. Hence, similar to scenario II, governments will again play a greater role in defining the economic strategy of the country without necessarily compromising the objectives of other economic and financial actors.

At the same time, a policy shift towards a new sectoral portfolio will most likely be accompanied by a weakening – at least temporarily – of the potential growth rate. Indeed, the structural change implied by such a scenario poses serious challenges in the form of large and long-lasting transition costs. The painful experiences of EU countries after the two oil shocks during the 1970s and the ensuing sectoral restructuring show that the effects of structural adjustment may be felt for several years, or even decades. Adjustment costs will be higher where there are rigid labour and product markets, which prevent an otherwise rapid transition of jobs and workers from one sector to another. Also, such adjustment will not happen without significant frictions: structural unemployment will rise on a permanent basis and the growth rate of labour productivity and real wages will fall. This may cause additional adverse effects, including through a weakening of aggregate demand. At the same time, revenue raised from taxes intended to reorient the economy towards new sectors will probably not be fully used to finance new jobs, for the simple reason that public finances have already taken a large hit during the crisis.

Clearly, while this may be the least likely scenario, it is also the most far-reaching from the perspective of real economy consequences. Financial returns are likely to decline for some time due to the strict limits that new regulation will impose. Moreover, disregarding active government intervention, the new financial environment will redefine comparative advantages, which entails transition costs and will reduce growth prospects. Certain international linkages and vertical production chains will get undone and a similar or even stronger tendency

towards glocalization as described for scenario II will emerge and diminish the role of world trade. Over the longer term, however, a substantially increased financial stability due to the smaller likelihood of international (financial) spillovers and a more tightly regulated banking system may provide some support to investment and job creation.

Consequences for labour market developments

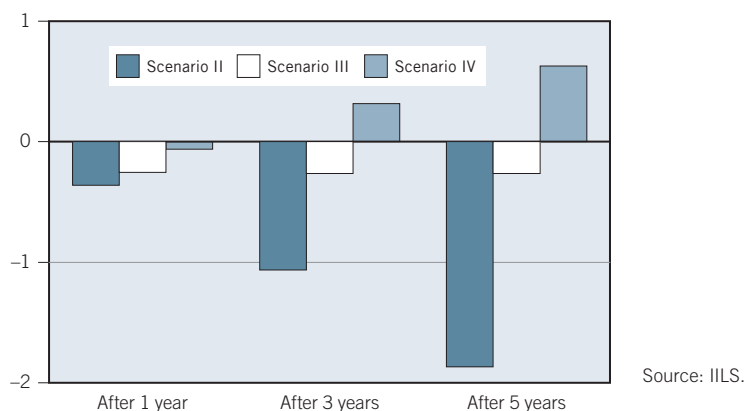
The discussion of the four scenarios highlights three key factors that will determine the implications of financial sector developments on the real economy. First, the extent to which new or modified regulation is implemented will have implications as to whether financial markets show more or less stress and volatility.⁵ Second and related to the previous factor, financial market regulation influences the cost of capital as well as the development of stock market valuations. Third, regarding the international situation, changes in the international financial architecture may impact on both international capital and trade flows. In order to improve understanding of the implications of the four different scenarios for labour markets, this section presents a quantitative investigation into the relationship between certain key macroeconomic variables that are part of these scenarios and labour market dynamics. In particular, a recently developed analytical framework to identify the determinants of labour flow dynamics was used for this investigation (Ernst, 2010). This framework makes it possible to link both economic and financial variables to the rate at which new jobs are created and old jobs are destroyed and thereby get a more precise estimate of the impact that each of the four scenarios will have on employment dynamics. Based on the scenarios developed in the preceding section we will put forward some likely paths that various variables will take under these different specifications.

On the basis of the different assumptions that these four scenarios make regarding the evolution of economic and regulatory variables, an estimation has been carried out as to the likely impacts on employment dynamics in an archetypical advanced G20 country.⁶ In the baseline scenario it was assumed that – starting in 2010 – the real value of outstanding shares would increase permanently by 10 per cent, that trade growth would continue at 10 per cent per annum and that capital flows would also increase by 10 per cent per annum. No further financial market regulation regarding securities or the banking sector would be introduced. At the same time, this scenario assumes a unit increase in global financial stress as measured by the indicator produced by Balakrishnan et al. (2009). The quantitative scenario assumes an impact of financial market stress not only on employment creation but also on labour supply (through a discouraged worker effect). In particular, according to the underlying estimates, labour force growth is permanently depressed by 1 percentage point if there is a unit increase in the financial market stress indicator. Despite this additional financial market stress,

5. In the following simulations, only the direct impact of financial market volatility on incentives for job creation is considered. Other, indirect influences of financial volatility, for instance through a devaluation of pension wealth or a reduction in capital gains, have not been retained. Considering them in the context of the empirical model used here is likely to reinforce the results presented in this section.

6. The scenarios are based on estimated elasticities of job creation and destruction rates with respect to various financial market variables; see Ernst (2010) for a detailed discussion of the methodology and results.

Figure 5.7 Comparisons of employment levels (scenarios II–IV vs. baseline scenario I) (percentage difference in employment levels with respect to scenario I)



employment growth continues to recover, thanks to strong growth in trade and share prices. After a peak in 2015 it will gradually return to its long-term trend rate at around 1.7 per cent, in line with labour force growth in this region (no change in demographics have been assumed for these simulations).

In comparison, the three other scenarios assume – each to a different degree – a further tightening of either regulation of securities or the banking sector, whereby scenarios IV makes the strictest assumptions about the evolution of these indicators (figure 5.7). Trade is expected to decline in scenarios II and IV whereas financial market stress (and the real value of outstanding shares) declines only in scenario III and IV, thanks to the introduction of tighter domestic regulation. As figure 5.7 demonstrates, for all three reform scenarios the effects on employment are negative in the short-term as expected, although the effects are certainly much less than has been predicted by others elsewhere (IIF, 2010). However, already after three years, some improvements can be seen under scenario IV, in particular due to the decrease in financial sector volatility. Under scenario II, where this effect is weakest, the adverse effects from reduced dynamics in world trade and financial market activity will keep the employment growth rate permanently below the baseline rate (unreformed financial markets), and employment levels will diverge. Under scenario III, where some re-regulation of international financial markets is attempted, the initial reduction in jobs will not be recovered, but over the longer term employment recovers to similar levels of expansion as in the baseline scenarios. When policy-makers show more ambition, in particular as regards domestic re-regulation and the supervisory framework of the banking sector, even stronger positive effects for employment creation can be expected, and employment will expand permanently faster than in the baseline scenario. In other words, the increase in costs resulting from stricter regulation of the banking sector can be considered to be moderate in comparison with the benefits arising from reduced financial market volatility, a point also made by Kashyap et al. (2010) as well as by the Financial Stability Board (BIS, 2010a) and the Basel Committee on Banking Supervision (BIS, 2010b). This means that financial market regulation may not only bring positive effects for financial sector stability but could at the same time improve the medium-term outlook for labour markets, a potential benefit that policy-makers should not easily dismiss.

Policy considerations

A full recovery of financial markets, which will be necessary to sustain vigorous job growth over the medium term, requires major financial sector reforms. The currently observed reduction in financial sector stress is unlikely to allow financial markets to return to pre-crisis trends. What is needed is an improved regulatory framework that reduces incentives for excessive risk taking, enhances market transparency and strengthens the sector's resilience against systemic shocks. However, several proposals for financial reforms by individual countries and the G20 country group have so far met with sometimes fierce opposition, in particular by sector lobbyists. The resistance to change has even increased recently, as the global economy started to recover somewhat, relieving policy-makers of the sense of urgency.

Financial market reforms – in particular as regards the supervisory framework of the banking sector – can bring about substantial benefits for labour market dynamics, especially over the medium term. While some adverse effects might be expected from tighter regulation, employment creation can strongly benefit from the reduced volatility that a more elaborate framework for securities, banking supervision and capital controls can bring. In this regard, policy-makers should use the reform momentum to strengthen capital adequacy rules, as suggested by the current negotiations of the Basel III framework, in order to reduce disproportionate leverage and excessive incentives for risk taking within the banking sector. Also, more systemic stability can be brought into the financial system by moving to a centralized clearance system for most if not all structured products. Implementing these proposals can greatly reduce the still very high levels of uncertainty among market participants, which will help reduce volatility and lower risk premia for corporations and households, thereby stimulating output and employment growth. Benefits of financial sector reforms for the real economy are greatest when they are implemented in a coordinated fashion, reforming both domestic financial markets and the international financial system.

Bibliography

- Abiad, A.; Detragiache, E.; Tressel, T. 2008. *A new database of financial reforms* (Washington, DC, International Monetary Fund (IMF)).
- Artus, P.; Pastré, O. 2009. *Sorties de crise. Ce qu'on ne nous dit pas. Ce qui nous attend* (Paris, Editions Perrin).
- Balakrishnan, R. et al. 2009. *The transmission of financial stress from advanced to emerging economies* (Washington, DC, IMF).
- Bank for International Settlements (BIS). 2010a. *An assessment of the long-term economic impact of stronger capital and liquidity requirements, Basel Committee on Banking Supervision* (Basel).
- . 2010b. *Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements: Interim report*, Macroeconomic Assessment Group established by the Financial Stability Board and the Basel Committee on Banking Supervision (Basel).
- Barth, J. R.; Caprio Jr., G.; Levine, R. 2001 (2008). *The regulation and supervision of banks. A new database* (Washington, DC, The World Bank).
- Beck, T.; Levine, R.; Loayza, N. 2000. "Financial development and sources of growth", in *Journal of Financial Economics*, Vol. 58, No. 1–2, pp. 261–300.
- Booth, P. (ed.) 2009. *Verdict on the crash. Causes and policy implications* (London, Institute of Economic Affairs).

- Bremmer, I. 2010. *The end of the free market: Who wins the war between states and corporations?* (New York, NY, Portfolio).
- . 2009. “State capitalism and the crisis”, in *McKinsey Quarterly* (July).
- Caballero, R.J.; Farhi, E.; Gourinchas, P. 2008a. “An equilibrium model of ‘global imbalances’ and low interest rates” in *American Economic Review*, Vol. 98, No. 11, pp. 358–393.
- . 2008b. *Financial “whac-a-mole”: Bubbles, commodity prices, and global imbalances*, paper prepared for the September 2008 Brookings Papers on Economic Activity Conference.
- . 2008c. “Financial crash, commodity prices and global imbalances”, in *Brookings Papers on Economic Activity*, Issue 2, p. 1.
- Caprio, G. 2010. *Safe and sound banking. A role for countercyclical regulatory requirements?* (Washington, DC, World Bank).
- Chan-Lau, J.A. 2010. *Regulatory capital charges for too-connected-to-fail institutions: A practical proposal* (Washington, DC, IMF).
- Chinn, M.D.; Ito, H. 2008. “A new measure of financial openness”, in *Journal of Comparative Policy Analysis*, Vol. 10, No. 2, pp. 309–322.
- Coelho, I.; Ebrill, L.; Summers, V. 2001. *Bank debit taxes in Latin America: An analysis of recent trends* (Washington, DC, IMF).
- Cohen, S.C.; DeLong, J.B. 2010. *The end of influence: What happens when other countries have the money* (New York, NY, Basic Books).
- Demirgüç-Kunt, A.; Levine, R. (eds). 2001. *Financial structure and economic growth: A cross-country comparison of banks, markets, and development* (Cambridge, MA, MIT Press).
- Dziemba, O.; Horx, M.; Wenzel, E. 2009. *Die Matrix des Wandels* (Kelkheim, Zukunftsinstitut).
- Ernst, E. 2010. *Determinants of unemployment dynamics. Economic factors, labour market institutions and financial development* (Geneva, International Institute for Labour Studies).
- Espinosa-Vega, M.A.; Solé, J. 2010. *Cross-border financial surveillance: A network perspective* (Washington, DC, IMF).
- Freund, C. 2009. *Demystifying the collapse in trade*, voxEU.org. Available at: <http://www.voxeu.org/index.php?q=node/3731> (accessed 6 Sep. 2010).
- Goodhart, C. 2010. *Are CoCos from cloud cuckoo-land?*, voxEU.org. Available at: <http://www.voxeu.org/index.php?q=node/5159> (accessed 6 Sep. 2010).
- Institute of International Finance (IIF). 2010. *Interim report on the cumulative impact on the global economy of proposed changes in the banking regulatory framework* (Washington, DC).
- International Monetary Fund (IMF). 2010. *Global financial stability report* (Washington, DC).
- Jorgenson, D.W.; Ho, M.S.; Stiroh, K.J. 2008. “A retrospective look at the US productivity growth resurgence”, in *Journal of Economic Perspectives*, Vol. 22, No. 1, pp. 3–24.
- Kashyap, A.K.; Stein, J.C.; Hanson, S. 2010. *An analysis of the impact of “substantially heightened” capital requirements on large financial institutions* (Chicago, IL, University of Chicago).
- Monnin, P.; Jokipii, T. 2010. *The impact of banking sector stability on the real economy*, Working Paper No. 5 (Zurich, Swiss National Bank (SNB)).
- Organisation for Economic Co-operation and Development (OECD). 2009. *Economic Outlook* (Paris).
- Rajan, R. 2010. *Fault lines: How hidden fractures still threaten the world economy* (Princeton, NJ, Princeton University Press).
- Torres, R. 2010. “Incomplete crisis responses: Socio-economic costs and policy implications”, in *International Labour Review*, Vol. 149, No. 2, pp. 127–137.
- World Trade Organization (WTO). 2010. *Trade policy review: China* (Geneva).
- Zingales, L. 2009. “Capitalism after the crisis”, in *National Affairs*, Issue 1, pp. 22–35 (Fall).