Karl Aiginger*

Strengthening the Resilience of an Economy

Enlarging the Menu of Stabilisation Policy to Prevent Another Crisis

The financial crisis has affected the real economy in stages yet nevertheless at an unexpected rate and with all regions being affected simultaneously. It advanced almost independently of the regions' exposure to the actual initial causes, among them the subprime crisis, innovative financial products, dubious microeconomic incentives, inefficient regulation and macroeconomic imbalances. The following analysis asks how national economic structures can be made more resilient to a shock (be it a financial crisis or another turbulence) and how economic policy can act in order to stabilise the economy before and after such a shock.

There is an increasing number of analyses of how the current financial crisis came about. They discuss the contribution of the financial sector, its "innovative" products and the inefficiency of existing regulation, the imbalances in the global economy and the role of globalisation. They suggest how to combat the present crisis, and also touch on how the economic system in general could react in the long term, and discuss the role of the state.¹

In contrast the following article asks a more specific and narrowly defined question: what can or should be done to make national economic structures more resilient? The existing national structures, institutions and strategies displayed little resilience to the shocks that originated in other regions and resilience seems to have decreased dramatically over the past decades. There seems to be a consensus that globalisation and internationalisation of the financial markets have increased the speed at which the crisis spread across almost all countries. The question that arises is whether one can and should create structures which are more resilient or whether such structures might in

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themselves have disadvantages as regards efficiency, growth, and employment.

There are few economic strategies which, isolated at a national level, can make an economy more resilient without carrying negative consequences for the efficiency or competitiveness of that economy. Most of the elements of any strategy need also to be part of an international strategy in order not to reduce the positive effects of globalisation. However, globalisation and internationalisation can and have to be supplemented/supported by policies at the national level or firm-level strategies.

Resilience is of course not the most important political goal. Indeed it would be the sixth goal within the last four years to be of the highest level of priority in Europe. The five preceding ones were: fighting unemployment in the middle of the decade (winter 2006 had the highest levels of unemployment since the fifties), increasing economic growth and competitiveness,²

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¹ Cf. K. Aiginger: Finanzkrise: Anlass, Ursachen, Strategien, inclusive Blick nach vorn, WIFO-Vorträge, No. 104, 2009, http://www.wifo. ac.at/aiginger/finanzkrise; A. Leijonhufvud: Fixing the crisis, The Role of Regulation and Monetary Policy, OeNB, 37th Economic Conference, Vienna 2009; P. Mooslechner: Finanzkrise, quo vadis?, in: Conturen 4, 2008. For a comparison of the depth and policy reaction see K. Aiginger: A Comparison of the Current Crisis with the Great Depression as Regards their Depth and the Policy Responses, WIFO-Vorträge, No. 109, 2009, http://wifo.ac.at/aiginger/policyresponses.

² Cf. K. Aiginger, G. Tichy, E. Walterskirchen (Projektleitung und Koordination): WIFO-Weißbuch: Mehr Beschäftigung durch Wachstum auf Basis von Innovation und Qualifikation, WIFO-Monographie, October 2006.

fighting inflation (specifically in 2008), combating global warming and containing the impact of the financial crisis (through monetary policy at the zero bound, state loan guarantees and fiscal stimulus measures).

The main goal of an economy in the longer term is to promote employment and growth under the constraints of social and ecological objectives as well as economic stability (defined as moderate inflation as well as cyclicality). As a result of our experience in the current crisis we would add resilience as a new important constraint. Resilience is defined as the ability of an economy to reduce the probability of further deep crises or at least to mitigate the effects of a crisis.

However, whilst resilience is a constraint only, not a final goal, it should not be ignored. Tackling a constraint in an isolated manner will probably lead to some loss of employment and growth. Furthermore a national strategy which is not embedded in an international one will carry even higher costs. National solutions which contain even a hint of protectionism or which reduce the openness of the economy should be avoided since the very openness, specifically for small open economies, e.g. Austria, was a factor of its success. The national protectionist policies adopted during the global economic crisis in the thirties actually contributed to a deepening and lengthening of the crisis. The correct approach in order to boost economic resilience consists of proposals for measures which have an international and a national dimension and which support the other strategic goals of the country's economic policy. Through the synergy of these measures with growth and employment policies it is possible to cushion or even turn around negative growth effects of the crisis.

Defining the Question and Policy Areas

The precise question to be posed is therefore: how can a national economy or even better the European Union protect itself from a future deep crisis without compromising its goals of growth and employment and without reducing its degree of economic openness?

To provide an answer to the question we screen strategies and measures in five policy areas. Insofar as the strategies are supported by policy measures and not followed by private firms alone the measures significantly extend the traditional instruments of economic stabilisation policy. We furthermore discuss (i) the ability of economic policy to support strategy lines, (ii) whether the strategies are feasible on the national level alone or only internationally, and which side effects on growth (iii) and costs (iv) could exist (cf. Table 1).

Policy Area 1: More Resilient Economic Structures

Strategy 1: Upgrading the industrial structure. Sectors with reduced exposure to price and business cycle volatility, e.g. highly processed products as opposed to raw materials and intermediate products, are less influenced by economic cycles even in the current crisis. However, this time the fluctuations in the machinery and construction sectors have also been particularly high. The car sector was always strongly cyclical, this time even more so due to flawed model policies (failing to adapt to increasing fuel costs or to look for alternative drive systems). In general, as well as in the current crisis, non-durable consumer goods are less cyclical compared to durable consumer goods. A larger proportion of non-durable consumer goods would reduce cyclical fluctuations but could be at the expense of growth since demand e.g. for food and clothes grows more slowly than that for other products and Europe is at a competitive disadvantage in this sector. What does make an economy more resilient to a crisis is a larger service sector, although it must be said that fast growing business services are more prone to stronger fluctuations (as compared to personal and public services). High value industrial products with a fast growth rate but also with a service component or product differentiation by quality definitely go some way to insuring against large fluctuations. This is also true of an industry structure which continually and prospectively incorporates the European Energy and Climate packages into any investment plans. This would also reduce fluctuations which occur as a result of the increasing priority of environmental goals.

It is counterproductive, however, to reduce the share of industry in output as it is the basis of many business-related services. There is also a lack of arguments which would justify this kind of government intervention in a market economy. The role of manufacturing for the growth of an economy is discussed in Aiginger and Sieber.³

Strategy 2: Regional diversification of exports. A broad spread of exports across all regions is usually an effective insurance against a crisis. The simultaneity of the economic downturn in the current crisis surprised everyone but even now there are markets which are still growing faster than the average or which are already growing fast again after the immediate impact

³ K. Aiginger, S. Sieber: Industriepolitik in Österreich: von selektiver Intervention zu einem systemischen Ansatz? WIFO Working Papers, No. 337, 2009.

Table 1 Strategy Elements to Increase Resilience: Feasibility and Side-effects

	Controllable by economic policy	Growth effect	Cost effect	National possible / only international
Policy Area 1: More Resilient Economic Structures				
Strategy 1: Upgrading the industrial structure	difficult	positive	-	national
Strategy 2: Regional diversification of exports	somewhat	rather positive	-	national
Strategy 3: Build in buffer and avoid lock-In	partly (stocks)	negative	increasing	rather international
Strategy 4: Strenghtening automatic stabiliziers	yes	rather negative	_	national
Policy Area 2: Increasing Economic Growth				
Strategy 5: Investing in the future	yes	positive	short-term increasing/ long-term decreasing	national
Strategy 6: Directing the public sector towards growth	yes	positive	short-term increasing	national
Strategy 7: Projects with a dual purpose, high employ- ment and growth effects	yes	positive	short-term increasing	national
Policy Area 3: Emphasising on Longer Term Goals				
Strategy 8: Measure performance over the long term	partly	rather positive (?)	increasing?	international
Strategy 9: Start-ups	somewhat	positive	increasing	national
Strategy 10: Anti-cyclical wage policy	partly	?	private increasing	rather international
Strategy 11: Thinking more long-term (European model)	marginal	rather positive (?)	rather increasing	international
Policy Area 4: Avoiding a Crisis				
Strategy 12: Smart regulation	yes	positive	-	international
Startegy 13: Work against the pro-cyclical nature of R&D expenditure	yes	positive	public increasing	national
Strategy 14: More critical evaluation of mergers and company size	yes	?	short-term increasing	international
Strategy 15: Tax financial transactions, evaluate financial innovations, reduce speculation	yes	rather positive (?)	slightly increasing	only international
Strategy 16: De-leveraging and a more stable shareholder structure	marginal	rather positive (?)	increasing	rather international
Strategy 17: More regionalisation	somewhat	negative	increasing	national (limited)
Policy Area 5: Stabilising Institutions				
Strategy 18: Budget surplus before a crisis	yes	short-term/long-term	?	national
Strategy 19: Construction ready projects	yes	positive	positive	national
Strategy 20: Supporting firms with a viable business model only	somewhat	positive	slightly increasing	national
Strategy 21: Innovative solutions to limit unemployment	rather yes	positive	positive	national
Strategy 22: Experience rating	yes	-	decreasing	national
Strategy 23: Broader company goals; trust and distribu- tional justice	difficult	positive?	short-term increasing/ long-term neutral	also national

from the crisis (China, India). Since one can assume that the next crisis will not be as synchronised it is advantageous to diversify exports across all regions whilst paying special attention to growth markets such as the Middle East, China, the emerging EU countries and neighbouring markets (Turkey, Ukraine and Russia).⁴

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Strategy 3: Build in buffer and avoid lock-In. The building up of inventories instead of just-in-time delivery could increase resilience. However, larger stocks may have the effect of reducing efficiency and increasing costs. Diversifying suppliers (having more than one), a broader range of potential buyers (more than one dominant buyer) and diversifying the application range of products (chip production for cars, mobile telephones and conveying machinery) can have

 $^{^{\}rm 4}\,$ Cf. Y. Wo I fm a yr : The Impact of the Global Economic Crisis on the Austrian Exports, 2009.

a stabilising effect. Diversification may also reduce the amount of research provided by a supplier for a fixed buyer. Technical know-how in the supply industry, which is valuable to multiple purchasers and for diverse purposes, generally increases flexibility in a crisis.

Public or private storage of goods which tend to be cyclical and whose supply is relatively fixed in the short term (difficult to expand) could be considered, e.g. food and energy. This would curb extreme fluctuations in price and lucrative speculation. Buffer stocks should ideally be on a supra-regional (e.g. European) level.

Strategy 4: Strengthening automatic stabilisers. High marginal taxation and high replacement ratios (e.g. for unemployment benefits) can slow down an economic boom or quickly smoothen a recession (without any additional discretionary economic policy intervention). However, both instruments have a downside with regards to efficiency (they may reduce workplace motivation and efforts by the unemployed to find a job). We should think about financing social security to a higher degree from tax revenues. The new budgetary framework used in many European countries sets spending limits, which, strictly applied, provide a buffer against the state spending too much money during a boom through expenditure ceilings. This prevents the dramatically increasing tax revenues, as seen in 2008, immediately being spent on additional spending programmes which were set up at short notice.

Policy Area 2: Increasing Economic Growth

Strategy 5: Investing in the future. Innovation and education strategies are recommended. They make sense both from a growth and employment point of view and from the efficiency aspect. Research and education create positive external effects; thus economic policy should subsidise these expenditures. More innovative firms with a highly qualified workforce are better placed to produce specialised products and more bespoke solutions for customers and as a rule are less vulnerable to a crisis. Competitiveness based on higher quality instead of lower prices increases resilience as does a top position in important market niches such as environmental technologies.

Strategy 6: Directing the public sector towards growth. Economic growth can, furthermore, be increased by directing tax revenues and government spending towards growth and employment. A tax system which is growth orientated reduces the tax burden on labour. An expenditure strategy which is growth enhancing fosters education and training, innovation and intangible infrastructure.

Strategy 7: Projects with dual purpose and high employment and growth effects. Policy interventions to stabilise the economy in a crisis are easier and even more seminal if the projects have a dual purpose. In other words in addition to supporting demand they also promote long-term goals, increase production capacity and improve competitiveness. Projects in both the environmental and health sectors are an example. The social need for, and probably the actual market potential of, health and environmental solutions are gaining importance. They further contribute to the resilience of an economy because they are not cyclical.

Policy Area 3: Emphasis on Longer-term Goals

Strategy 8: Measure performance over the long term. If financial flows, management salaries and company ratings are more focused towards performance over the longer term, incomes will be stabilised and incentives to undertake procyclical activities reduced. Corporate and economic development will be further stabilised and risks lowered if the importance placed on quarterly earnings, daily and weekly share prices is reduced. A more long-term investment horizon reduces the importance of short-term projects. Company presentations, reports and ratings should contain longer-term corporate goals and longer-term interests for stakeholders, and should cover investment in human capital and both social and environmental corporate activities. Bonuses should only be paid in the case of sustained success, and, even then, only with a time lag between the decision to award a bonus and its actual payment.

Strategy 9: Starts-ups. It is important for the dynamics and maybe also the stability of an economy to support young innovative firms, gazelles, and start-ups in general and even more so in a crisis (e.g. new self-employed). Therefore, start-ups should be encouraged particularly in a more difficult economic climate. Specific support for spin-offs or for forming a company as a way out of unemployment should be considered.

Since venture capital (especially capital for the early high risk stage of a start-up) is tight in many European countries, it could be important that a state-financed Fund of Funds can stabilise funds available to investors even in a crisis. The Fund of Funds would reduce the risk for private investors by virtue of the state's minimum stake in the venture capital. The Fund could also be tasked to deal with anticyclical funding.

Strategy 10: Anticyclical wage policy. Demand can be stabilised by developing a wage policy which limits wage increases during a boom but stabilises or increases the wage share during an economic downturn. Such a policy has more scope if it is also pursued at an international level (or at least EU level). However, such policies mean that the costs for firms with structural problems would become dramatically high in the trough and thus the risk of bankruptcy and job losses increases. A stabilising wage policy could be supplemented by employee profit-sharing in good times and guaranteed minimum payments in a recession

In times of economic crisis one could also strive for larger spreads in wage increases. Consumption can be stabilised through relatively high wage increases at low incomes (with a given increase in aggregate wages). Shareholders demand returns even in a recession. However, if there is high profit growth during a boom, then in a recession there must be low profits or losses. In any case, if profits fall by 50% that is not actually disastrous, but simply a cyclical reality. It makes no sense, either at macroeconomic or business level, to strive for profit at all costs in a recession (thereby not investing in the future or decreasing wages).

Strategy 11: Thinking more long-term (European model). The Anglo-American model places more emphasis on short-term incentives and market clearing, usually through the use of price mechanisms. They are further reinforced through competition policy and are deliberately not tempered using market regulation. The European model is less based on monetary incentives, knows prudence (e.g. in accounting) and regulates using a combination of targets for both price and quantity. Quota regulation and targets can be stabilising but they hide the danger of slow structural change. The trend of moving from quotas or regulatory rules to more price flexibility after decades of deregulation and liberalisation could be over in several areas. The former separation in the US financial sector between commercial and investment banks etc. called "compartmentalisation" by Axel Leijonhufvud⁵ was definitely not ideal. However, the crisis has shown that lifting these separations and creating new financial products in unregulated institutions, as well as forming new companies (Conduits, Special Purpose Vehicles) had its own dangers. The earlier arbitrary subdivision of the dynamic market in the USA carried the advantage that any crisis was limited to one section of the economy (e.g. the Savings and Loan crisis in the USA in the eighties).

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The combination of private pension provisions with minimum payments and returns guaranteed by law can stabilise consumption and be fair from a distributional point of view. The management of private pensions must also incorporate life cycle considerations which imply e.g. reducing investment in shares as retirement approaches and not only pursue the highest return. The combination of foreign currency loans with a repayment model ("repayment vehicle") which is dependent on share prices is not suitable for low wage earners.

Policy Area 4: Avoiding a Crisis

Strategy 12: Smart regulation. Regulation should at least not contribute to any crisis (which was the case with the regulations in the Basel II agreements).⁶ The goal of regulatory reform should be to introduce anticyclical equity provisions and to take due account of systemic risk in the financial sector (macro-prudential regulation), rather than assessing risk at the level of individual products. The following measures should not be disputed: international cooperation in financial regulation; all financial institutions should fall under the remit of the financial regulator; the financial regulator should make any necessary warnings, as should economic research institutions and central banks if there are extraordinary yields, substantial deviations of Price Earnings Ratios from their historic average, or unsustainable price rallies and speculative waves. These institutionalised warning mechanisms would counter any tendencies in the market to become overoptimistic in times of boom. Regulators and analysts must build into any regulatory measures the fact that financial markets tend to have waves of optimism/pessimism. It is the task of analysts and of any monetary policy to at least keep an eye on any "economic bubbles" and not only to clean up the mess afterwards.

Part of any regulatory measures must occur at the international level. National regulations can and should supplement these. Regulations, which are stricter at the national than at the international level, e.g. higher equity provisions or lower leverage, could not be enforced at a national level and would negatively affect competitiveness. The monitoring and control of highrisk activities or poor governance in financial institutions will increasingly involve firms which are active in more than one country. It would therefore be worthwhile involving international analysts and experts in the work of the national financial regulatory bodies.

⁵ A. Leijonhufvud, op. cit.

⁶ F. R. Hahn: Die neue Basler Eigenkapitalvereinbarung ("Basel II") aus makroökonomischer Sicht, WIFO-Monatsberichte, No. 2, 2003.

Strategy 13: Work against the pro-cyclical nature of R&D expenditure. During a crisis firms reduce their investments in projects with long-term returns, which include R&D expenditure. This is especially true in large international firms with subsidiaries in several countries. Research incentives and incentives for certain important investments could be made more anticyclical. Although constant general conditions are naturally important for longer-term activities, state research subsidies should be specifically increased during any crisis. Decreasing third-party funding for e.g. university research should be compensated for.

Strategy 14: More critical evaluation of mergers and company size. Competition policy has not been sufficiently critical of mergers, monopolies and oligopolies over the past few years. Mergers, and the size of a company, need once more to be regarded with a more critical eye especially in the case of a takeover or merger financed by credit. The disadvantage of large companies is that if they have problems, they generally bring down whole regions, and thus tend to be bailed out with large financial packages. Therefore, companies which are essentially "too big to fail" need to be subject to tighter competition controls and reporting obligations. Company ratings will need to become more frequent because these companies are more active in the bonds market. One possibility would be that once a company reaches a particular size or market share or is active in a particular number of countries, ratings become mandatory and thus complement the reporting obligations on longterm strategies by firms. More competition (entry of new companies, less dominant firms, competition in liberal professions) can make an economy more resilient.

Strategy 15: Tax financial transactions, evaluate financial innovations, reduce speculation. Taxing short-term financial transactions makes sense for many reasons, and has been condoned on many occasions.⁷ The size of the financial sector has grown relative to the "real" economy (if such a dichotomy can be measured empirically). The internationalisation of the financial sector has supported the growth of developing countries and the new members of the EU and allowed them both to catch up with the rest of the world/EU).⁸ However, not all transactions promote growth, and many transactions do not actually serve to determe the long-term value of an asset but rather exploit and enhance current trends ("runs") in exchange rates, share prices or other financial products. We have clearly seen the limits of financial models where the provision of funds is separated from risk (originate to distribute). Nevertheless, it must be emphasised that securitisations have been advantageous for both loan providers and borrowers.

Strategy 16: De-leveraging and a more stable shareholder structure. Companies which have a higher equity ratio are more resilient, as are companies which have a stable owner structure. This in turn means that firms are able to avoid the need to maximise short-term returns through taking on more debt and more risky projects and that firms are able to bear losses in a recession. All companies reporting (high) returns on equity should disclose the leverage factor (by standardised indicators). There is a loss of efficiency if shareholder structures are too stable, and if any mistakes or missed opportunities are not spotted.

A period of "de-leveraging" is a period of low growth. This is why demanding a higher equity ratio affects short to medium-term growth. Empirical studies have shown that before the crisis, in the industrial sector there was no general over-indebtedness relative to equity but the opposite was true in the financial sector.

Strategy 17: More regionalisation. Those firms and industries which have a higher share of exports are worse hit by any worldwide crisis. Companies with a more regional distribution and which are more regionally integrated are less exposed. Lengthy transportation of products (often merely for an intermediate stage of production) is being criticised from an environmental point of view and does not always seem to be entirely necessary. The only measure which can be used to promote a return to a more regional basis, without having to accept any loss of efficiency, would be to include all the external costs and side-effects of transportation in its actual cost. This would also be an environmentally desirable outcome.

More regionalisation does not automatically mean there is less risk of a crisis but would mean that it might not spread as simultaneously. However, too much regionalisation can bring with it losses in efficiency and growth since you forgo the gains from the

⁷ S. Schulmeister: Handelsdynamik und Preisschwankungen auf Finanzmärkten und das Stabilisierungspotential einer Finanztransaktionssteuer, WIFO-Monatsberichte, No. 8, 2008; S. Schulmeister, M. Schratzenstaller, O. Picek: A General Financial Transaction Tax. Motives, Revenues, Feasibility and Effects, WIFO-Monographie, No. 3, 2008.

⁸ It also increased the probability of financial crises, however.

international division of labour. This policy also works against a wider and more diverse (regional) market.

Policy Area 5: Stabilising Institutions

Strategy 18: Budget surplus before a crisis. The most effective macroeconomic protection against the consequences of any crisis is a budget surplus over the whole of the economic cycle. The minimum to be expected would be a considerable cyclically adjusted ("structural") budget surplus in each peak of the cycle. The surplus can then be used during times of crisis to stabilise demand in the entire economy without having to fear future tax rises or public expenditure cuts.

Limits to new public debt need to be spotted early. If funds are put aside early the necessity to save during or after a crisis is reduced.

Strategy 19: Construction ready projects. During a crisis demands are often made for construction projects which can immediately be set in motion. Particularly in the current crisis it has become clear that the time-lag between deciding on a stimulus package and actually setting in motion big construction projects is long. This time-span, called "implementation lag" in the literature, may even have risen over time. The projects need to be planned in advance, including all necessary construction permits and with a completed tendering process. Smaller projects on a regional level can be more speedily set in motion than larger ones. They should, however, also be financed by a fund because during any crisis even the tax revenues at a regional level decline rapidly. It should also be noted that establishing a fund does carry certain costs and reduces budgeting transparency when putting together a budget.

Strategy 20: Supporting firms with a viable business model only. Every crisis contributes to structural change. Economic intervention should reduce the negative effects on employment but without preventing this structural change. This means that any governmental support (cheap loans, purchasing incentives, guarantees) should be strictly linked to concepts and restructurings (incl. management and ownership structures) which are looking to the future. Otherwise a crisis actually becomes the building block of further and deeper crises (at least in a section of the economy).

Strategy 21: Innovative solutions to limit unemployment. Reducing working hours in the short term and in a reversible form will reduce unemployment. Models where working hours are calculated over longer periods of time and flexible working-time arrangements have such an effect. There now and in future tends to be a shortage of qualified workers. Unemployment is known to be inversely correlated with education.

It is important not to reduce the workforce in the long term. Reduced working time should be used to catch up on further qualifications (apprenticeship, bachelor studies, courses at polytechnic etc.) Any further education should lead to some form of formal recognition as this in turn increases job mobility. Not all employees will be able to be employed in exactly the same companies after a financial crisis.

Active labour market policies foster growth. Broader qualifications and training which is forward-looking reduce the effect of fluctuations in output on the labour market. If in a recession there are still sectors and companies which could actually produce more if they found the correctly qualified staff (engineers, skilled workers, carers and child carers), a more flexible workforce would actually reduce economic fluctuations (level of mismatch is reduced).

Strategy 22: Experience rating. Companies which avoid fluctuations in employment impose less cost on unemployment insurance funds and should thus pay a smaller contribution. The bonus could be calculated in either absolute or relative terms to the sector average.⁹ The need to lay off staff or have seasonal contracts is reduced if fluctuations in output are reduced or if employees can be flexibly employed and carry out different tasks during the year.

Strategy 23: Broader company goals, trust and distributional justice. The single goal of short-term profit leads to more pronounced cyclical fluctuations. Those companies which pay attention to the development of human capital and capabilities, which take into account environmental and social aspects, and for whom corporate social responsibility is a given, have a more lasting success and contribute to reduced economic fluctuations. They are also more easily reconcilable with the broader goals of economic policy (environment, full employment, distribution).

Broader corporate goals (corporate social responsibility in a wider sense) should also have a place in company assessment by financial analysts. They form a trusted base on which flexible and sustainable strategies can be built. Performance orientation, fairness and flexibility are the important elements of success in the Scandinavian models and in a functioning social

⁹ Cf. K. Aiginger, G. Tichy, E. Walterskirchen, op. cit.

partnership. In countries with such structures people are more prepared to see openness and globalisation as advantageous. Microeconomic change needs trust and macroeconomic stability and at the same time contributes to economic resilience.

Feasibility and Side-effects

We have presented 23 strategies in five policy areas. This could be a menu for an enlarged cyclical policy, combining demand management with structural policy. However, not all strategies are achievable without negative side-effects and costs. Specifically, not all strategies to foster economic resilience are achievable without negative effects on growth. Some demand that a similar policy be followed in other countries/regions and at an international level. Table 1 reports on the feasibility of economic policy to influence a strategy, the probable side-effects of the strategies on growth and competitiveness and their ability to be implemented at a national level. No strategy should be followed which leads to less openness and protectionism, since protectionism costs growth and jobs. The negative effects for the dynamic of the economy of some of the strategies need to be compensated for by integrating special growth strategies into the overall strategy. In this way higher growth and employment could ideally be combined with greater stability.

Summary

The theory of business cycles explains how there are short-term fluctuations around a medium-term growth trend. The medium-term trend is taken as a given. It is defined by factors which do not influence economic fluctuations and which cannot be changed by stabilisation policy (i.e. are exogenous). The instruments that can then actually be used to stabilise an economy become somewhat limited: monetary policy, budgetary policy and possibly also redistribution of income for the benefit of lower income earners. The time-lag for such policies to take effect is extremely long and often even longer that the economic crisis itself. The structural effects are becoming more problematic as the budget deficit finances construction projects which are not viable in normal times. Economic stabilisation policy has a tendency towards asymmetries: deficits in recessions are not matched by surpluses in boom times. Nevertheless, the advantages of anticyclical as compared to procyclical or neutral budgetary policies are a central and important economic insight.

The current worldwide crisis of the real economy has lasted long enough for all monetary and fiscal strategies to be exhausted. The long time-lags before policies have an effect become clearly visible this time. Government expenditure on structural issues, such as training and energy saving, has remained low. More problematic measures like premia for substituting new cars for old ones (independent of size and fuel efficiency) prove easier to implement.

In such a situation the question arises how shocks can be avoided in the first place¹⁰ or how structures can be created which are more resilient. Ideally, we look for economic policies which foster economic stability, but at the same time growth, structural and environmental change.

Resilience should not be an isolated economic goal but should be integrated as an additional important constraint into growth and employment strategies. Microeconomic change and fulfilling social goals must complement each other. The contribution of private firms and of an economic policy which is growth and stability oriented are both indispensable and indeed support each other.

Economic resilience should be achieved through five channels (or policy areas), namely (i) more resilient structures (ii) increasing economic growth (iii) more emphasis on longer-term goals (by firms, analysts and economic policy) (iv) avoiding factors which actually cause economic crises (v) institutions and incentive schemes which serve to stabilise the economy.

The European socio-economic model offers a foundation for a more resilient structure, since it is less biased towards short-run goals, regulation and governance does not rely on prices only, and financial innovations and speculation do not play a similar role as in the USA. Performance would increase if the European countries avoid cementing existing structures in production, regulation and the public sector. It is not less change but rather adapting more proactively to the future and open structures plus providing buffer stocks which bring more security and dynamism in the long run.

¹⁰ Cf. K. Aiginger: Finanzkrise: Anlass, Ursachen, Strategien, inclusive Blick nach vorn, op. cit.; G. Cooper: The Origin of Financial Crises, 2008, Harrian House; Goldmann-Sachs: Effective Regulation: Part 1: Avoiding Another Meltdown, Global Market Institute, March 2009; F. R. Hahn: Internationale Bankenkrise und die Rolle von Finanzaufsicht und Finanzinnovationen, WIFO- Monatsberichte, No. 8, 2008; J. B. Taylor: The Financial Crisis and the Policy Responses: An empirical analysis of what went wrong, NBER Working Paper, No. 14631, 2009.