2 China's Turbulent Half-Decade

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Introduction

The second half of the first decade of the twenty-first century was a turbulent one for China and the world. The period opened and closed with the macroeconomic policy stance tilted towards restraint. In between times, an immense stimulatory package was assembled, executed and withdrawn. The economy experienced two periods of uncomfortably high inflation on either side of a period of outright price declines. This chapter offers a framework for considering Chinese economic performance of recent vintage while tracing the shifting contours of policy in this volatile era.

The chapter proceeds in the following manner. First, a framework for making sense of the Chinese economic cycle through the sectoral rotation of investment is presented. Second, economic conditions in the lead-up to the crisis are surveyed, with an emphasis on the domestic imbalances that accrued in this period of extremely rapid expansion. Third, the stimulatory policies enacted in response to the combination of a huge external shock and a domestic slowdown are outlined and analysed. Fourth, the key elements of the recovery are considered and assessed from both cyclical and structural perspectives. Fifth, the normalisation path of the most important macroeconomic and sector-specific policies is laid out, up to and including recent moves to actively restrain growth and inflation.

A simple framework for tracking China's economic cycle

At the heart of the Chinese economic cycle are administrative efforts to achieve a balance between public and private activity. The dominant contributions to fluctuations in Chinese economic growth come from fixed investment (Figure 2.1). The three largest contributors to fixed investment growth in China are real estate, heavy industry and infrastructure. To stylise somewhat, it is useful to think of real estate activity as a proxy for the private sector, infrastructure activity as a proxy for the public sector and heavy industrial activity as derived demand reflecting developments in these two major end-user sectors.

It is unusual to see real estate and infrastructure activity elevated simultaneously given the logical implications of this situation for heavy industrial activity; the economy would soon overheat. Equally, if real estate and infrastructure were both subdued at the same

time, recession would inevitably threaten. Easing off on infrastructure while real estate has momentum, and responding swiftly with infrastructure projects when private activity tails off, is Chinese counter-cyclical policy making 101.

This framework offers a simple and intuitive lens for tracking Chinese economic growth. It is particularly useful for the decade of the 2000s. The enthusiastically embraced housing reforms of the late 1990s have elevated residential real estate to a position of major macroeconomic importance. China’s relatively low level of capital stock per worker and obvious infrastructure deficits, coupled to the high observed level of capital formation to gross domestic product (GDP) (McKay and Song 2010:4–7) and the long-term imperative to integrate the currently fragmented provincial economy, place infrastructure provision at the heart of the growth model.

Figure 2.1 Contributions to fixed investment growth

Note: Contributions to the year-ended growth rate in percentage points. See Appendix 2.1 for definitions of these categories.

Many will criticise this schema because it excludes explicit reference to the export sector. The case for assigning exports a primary role in Chinese economic growth has been made many times, by Chinese and foreign observers alike (Akyuz 2011; Ljungwall 2006; Xu 2010). Others argue that the impact of exports is significantly overstated (Anderson 2007; He and Zhang 2010; Keidel 2008). The debate in many cases boils down to how exports are measured, or, more precisely, to what degree the import component of exports is allowed for.²

Herrerias and Orts (2010) and Roberts and Rush (2010) offer balanced summaries of the debate, concluding that each is a major contributor to growth. It is not the aim of this chapter to reopen this question. It is the author’s long-held position that exports are important but not primary in driving Chinese economic growth (see, for example, the discussion in McKay 2008:17–25). The following discussion sits comfortably within that tradition.

The lead-up to the crisis

The era under consideration comes with a ready-made dividing line in the form of the dramatic collapse of global financial markets and international trade in the latter months of 2008. While the closed nature of China's exchange arrangements shielded the economy from the worst of the financial shock, the collapse in trade activity was a major imposition for the real economy. Even so, contrary to the expectations of many, aggregate activity levels were quite resilient to the trade implosion. The major levers of domestic demand responded with alacrity to the various policy stimuli put in place, enabling respectable economic growth in the face of the extraordinary external drag.

A discussion of the years preceding the financial crisis needs to begin a little before the onset of the half-decade that gives this chapter its name. In 2003, the economy was recovering strongly from the shocks of the East Asian financial crisis and the shallow global recession of 2001. At the centre of the rebound were an investment boom in heavy industry and a surge in international trade associated with China's World Trade Organisation (WTO) accession of 2001. It was the former trend that the domestic authorities saw as a destabilising one in need of a mitigating policy response. With a number of energy, resource and emissions-intensive sectors adding excessive new capacity at a febrile pace, policy intervened in April 2004. A list of overheated heavy-industrial sectors was compiled. These industries were to have their access to credit tightened appreciably. Approval standards for new projects increased in stringency, and centrally driven rationalisation programs were instituted (Huang and Jha 2004).

The microeconomic tightening response to the specific issues of 2004, which was successful in slowing heavy industrial capacity expansion, saw a couple of years of relatively balanced investment growth in 2005 and 2006. The fact that the Eleventh Five-Year Plan (2006–10) was enacted under the umbrella of a tight fiscal policy stance contributed to a healthy but not dramatic expansion of capital formation at this time. The deceleration of import growth associated with a slower rate of heavy industrial expansion and more effective competition by local producers of machinery and capital goods, at a time when global demand for Chinese exports was booming, saw a dramatic widening of the trade position in these years. So, while domestic demand growth was relatively stable through this period, the net export contribution to GDP growth rose substantially, pushing overall growth above 11 per cent.

Heavy industrial investment made a comeback in 2007 as the administrative interpretation of the 2004 framework began to loosen enough to enable a material acceleration of activity. Coming at a time when the real estate industry was also booming (rapid price rises, high sales turnover and a major construction upswing), net exports were on the way to adding 2.5 percentage points to annual GDP growth, capital inflows were extremely strong and inflation pressures were building, the need for a new round of macroeconomic tightening measures was inescapable.

Monetary and credit policies were progressively tightened from the first half of 2007 through a combination of price, market-based and administrative measures (including interest rate increases, expanded open-market operations, increased reserve requirements for banks, quantitative credit restrictions and exchange rate appreciation). The central

fiscal position moved into surplus and the Central Government’s capital works program was allowed to essentially stagnate. Direct administrative controls were placed on activity in real estate and the designated ‘overheated’ sectors of 2004. Export subsidies for a long list of energy-intensive products were lowered, scrapped or in some cases converted into outright export taxes. The exchange rate was allowed to rise more quickly than the modest pace of appreciation that was engineered in the initial years following the July 2005 peg exit.

The economy reportedly expanded by a remarkable 14.2 per cent (real) in calendar year 2007, but the momentum of growth peaked in the March quarter of that year (18.1 per cent at a seasonally adjusted annualised rate) and decelerated from that point forward as tightening measures began to have an impact. In the background, the support for Chinese growth coming from the external sector was also diminishing. The first clear signs of financial strain were beginning to show in the United States around mid-2007, while that country’s housing market, on which so much in the financial sphere depended, was exhibiting recessionary tendencies.

Even so, commodity prices were running hot, turning China’s terms of trade sharply negative. China’s import bill spiked as energy and iron ore prices hit record levels in the first half of 2008. Simultaneously, a ‘global food crisis’ drove agricultural prices skywards, helping to push Chinese annual consumer price inflation to a peak of 8.5 per cent. The implicit price deflator for GDP peaked at an annual rate of 12.2 per cent (Figure 2.2). The jump in inflation encouraged what with hindsight can be described as ‘late-cycle’ tightening measures imposed on an economy that was already decelerating.

Figure 2.2 Various measures of Chinese inflation

An industry that was particularly vulnerable at this time was housing. The sector had been engaged in a frenetic upswing, fuelled principally by the mobilisation of savings that sought superior inflation-adjusted long-run returns to those available from either bank deposits or the equity market. The former were unattractive due to the low real rates imposed by bureaucratic fiat. The latter were unattractive due to the huge volatility of returns and the omnipresent threat of a potentially overwhelming supply of state-owned shares should the administration choose to bring them to market (Rule 2005; Walter and Howie 2011). Housing, on the other hand, benefited from capital gains and holding tax vacuums (Morinobu 2006), strong underlying demand from new urban residents and upgrading demand from those moving up the income scale, plus an overtly supportive stance from local government, where revenues from land sales were becoming increasingly important.

These strong fundamentals and the supportive policy backdrop, in addition to an upward march of 'price discovery' as the overall stock of dwellings was incrementally commercialised, had led to a major boom. This in turn attracted speculative players, some of whom had transferred funds from the equity market, which had been struggling since liquidity conditions had begun to be tightened. At the margin, capital inflows also supported the property market, as onshore investors repatriated funds held abroad for deployment at home. An increase in the supply of mortgage loans from the banking system (from a very low initial level) completed the picture.

The rise in valuations saw affordability decline alarmingly, essentially locking out potential first-time buyers on average incomes from entering the owner-occupier class in the major cities. Additionally, as most of the new commercial stock coming onto the market was pitched at the luxury end, turnover was becoming concentrated among investors rather than first-time or upgrading owner-occupiers.

This combination of trends made housing vulnerable despite the strong apparent underlying demand fundamentals. With investors making up a large proportion of sales, a policy stance that penalised this group could be expected to create a major disruption, which it did. As the required cash-down payment for non-first-home purchases was increased along with interest rates, investor demand began to flag and overall sales accordingly softened.

This left developers with a growing stock of unsold inventory on their hands. Accordingly, they shifted their focus from bringing new projects to market to concentrating on selling what was already completed, with discounting the main tool at their disposal. Discounts were initially ineffective and the volume of sales (measured in square metres of floor space) fell so low that it was insufficient to absorb new completions, let alone existing stock already on the market (Figure 2.3).

Figure 2.3 The real estate sector: starts, sales and completions

Note: Underlying data are in square metres. Indices are based at August 2006.

This disconnect had predictably negative consequences for construction activity. The impact on upstream heavy industrial sectors such as steel and cement was considerable. The demand for raw materials and electricity shrank as intermediate-goods producers wallowed in unanticipated inventory gluts and lowered output in response.

The worst moments for housing coincided with the peak of the global disruption to economic activity from October 2008 to February 2009. Yet it is clear that the housing correction would have played out on a material scale irrespective of the external shock, given the market and policy dynamics that were in play. While the reversal of capital inflow and the deleterious impact on sentiment from the collapse of global trade undoubtedly played a role in the woes of real estate, they were neither catalytic nor central to the process.

The auto industry also went through a very difficult phase at this time, with sales declining from an annualised rate of 11 million in January 2008 to just 8 million by December of the same year (Figure 2.4). The fortunes of the auto sector neatly encapsulate the complex interplay between the economic cycle and the virtuous circles of structural uplift experienced by a successively developing low-income economy. It also exhibits major backward and forward linkages to other sectors (Baker and Hyvonen 2011), with substantial demand for upstream intermediate goods and components in addition to a major distribution network downstream. These characteristics, and relatively low rates of both import and export penetration,³ make it a bellwether for the overall state of the economy. In 2008, auto sales lived up to this designation, faithfully reflecting the growing burden of tight policy on discretionary activity.

Figure 2.4 Housing and auto sales

The response to the external crisis and the domestic slowdown

Confronted with a haemorrhaging export sector, a housing market correction and a major inventory problem in heavy industry, the Government's initial response to crisis was to announce a modest package in October 2008 that featured policies designed to bring about favourable structural change in the economy. In other words, it targeted consumption and refrained from the easy path of supporting housing and heavy industry directly. As the business surveys (the first information on economy received in the monthly data round) from home and abroad filtered in through early November, describing a remarkable evaporation of international trade in October, it was clear, however, that 'good' policy would have to be subordinated to pragmatic concerns for the interim.

Figure 2.5 5000 enterprises survey: domestic and foreign order books

China's second stimulus package was equivalent to almost 14 per cent of GDP, spread over two years, and would focus on transport and power infrastructure (45 per cent), reconstruction spending associated with the terrible losses of the Sichuan earthquake (20 per cent), rural infrastructure and environmental projects (18 per cent), social services and tax breaks (10 per cent) and public housing (7 per cent). Further, the aggregate policy environment was shifted to outright accommodative—'appropriately loose' was the official phrase (Shu and Ng 2010:14)—and sector-specific incentives were introduced for housing, autos and household appliances.

The removal of the annual lending quota was central to the easing of monetary conditions. New loans equivalent to 52 per cent of GDP were extended in the first half of 2009 (Figure 2.5). A rapid reduction in required reserve ratios freed liquidity in the banking system and lending rates were cut (Figure 2.6). The proportion of loans that were extended at a discount to benchmark rose considerably, in line with a rapid take-up of bank financing by the state-owned enterprise (SOE) sector. The rise in the contribution of SOEs to overall investment growth and the dramatic lift in infrastructure combine to illustrate the dominant forces in the growth rebound of 2009 (Figure 2.7).

The nature and scale of the package well illustrate the magnitude of the shock that the administration was trying to offset. Essentially, the administration eschewed carefully structured policies and went for growth in the most reliable manner possible. The trade-offs attached to this decision were many, and the negative structural impacts will influence the path and composition of economic activity for some time to come. The positive is that the surge in infrastructure investment has enhanced the supply side of the economy considerably, particularly on the logistics side. So, while the encouragement of heavy industry, real estate speculation and the further embedding of the huge SOEs in

their comfortable monopolies are at the top of the list of negative legacies of the stimulus package, the rapid increase in transport infrastructure represents an impressive leap in the direction of integrating China's fragmented regional economies into a unified mega market.

Figure 2.6 Policy stance, lending standards and lending rates

Notes: Shaded areas demarcate monetary policy phases as defined in Shu and Ng (2010) along with their narrative description. The percentage discounted loans series indicates the proportion of loans extended at a discount of at least 10 per cent to the benchmark rate.

Figure 2.7 Contributions to fixed investment growth

Note: The stacked columns sum to annual fixed investment growth, but the SOE contribution is to be considered separately.

The maintenance of the easy policy stance was accommodated by inflation falling into negative territory. The producer price index and the consumer price index were both down on a year earlier for three straight quarters in 2009; the GDP deflator fell to –2.3 per cent year-on-year in the June quarter; property prices fell and the rental price index likewise (Figure 2.2). Indeed, China's relative price level was a source of real exchange rate depreciation at this time while the nominal exchange rate appreciated sharply in effective terms (see Figure 2.9 and commentary below).

Elements of the recovery

The nature of the recovery from an activity perspective ensured that it was highly resource (and emissions) intensive. Metal and energy prices collapsed along with global economic growth in late 2008 and remained under pressure in to early 2009. The firming of Chinese domestic demand, however, as the stimulus efforts bore fruit put raw material import volumes on an unambiguous recovery trajectory by the June quarter of 2009, over and above the usual seasonal increase at this time. Iron ore import volumes were already rising strongly by February 2009, with crude oil volumes just a few months behind.

Housing turnover recovered in spectacular fashion as pent-up demand from both owner-occupiers and investors—kept latent for much of 2008 for reasons of affordability and policy restraint respectively—was unleashed. The policy initiatives sponsoring the shift included lower minimum repayments for house purchases, stamp duty and value-added tax waivers, a shortening from five years to two years of the minimum holding period for tax-exempt housing transfers and the extension of first-home buyer perks to second-home purchasers (HKMA 2010). The turnaround between the last tightening measure on real estate (August 2008) and the first easing measure (October 2008) illustrates the speed at which the downturn took hold.

The strong sales demand produced by this cavalcade of initiatives enabled developers to clear the excess inventory they had accumulated during the downturn and again look to expand. Historically, the growth of housing sales leads the growth of housing starts (measured in volume terms) by about six months and this relationship held tightly during the recovery phase (Figure 2.8). The surge in starts duly lent support to the growth of fixed investment, which was already trending higher in response to the infrastructure program. The order books of heavy industrial manufacturers were full again. In terms of annualised GDP growth, the four quarters of calendar year 2009 read like so: 7.1 per cent for March, 14.8 per cent for June, 10.6 per cent for September and 10.9 per cent for December. By the end of 2009, high-speed domestic demand growth was fully reinstated.

Figure 2.8 Housing sales and starts

Note: Underlying data are in square metres.

The reader should recognise this combination of trends from the framework put forward at the beginning of the chapter. The framework posited that if infrastructure investment is elevated, the economy cannot afford to have real estate booming simultaneously, as heavy industry will be encouraged to accelerate alarmingly and overheating pressures will inevitably emerge. China was experiencing exactly that set of circumstances in the first half of 2010.

As the pipeline of infrastructure projects instituted as part of the stimulus package was still under way by the time housing was fully back on its feet, inflation began to brew. Individual city housing markets were beginning to look quite frothy, with Beijing in the vanguard of this phenomenon. Tighter policy was clearly required.

The first tentative signs that the administration was looking to normalise the policy stance came in the second half of 2009. First, the Central Economic Working Meeting stated that investment should focus on bringing existing projects to fruition, rather than seeking out new ventures. This was a clear statement that the pipeline of activity was considered ample and that by not actively replenishing it, the authorities were signalling that slower growth down the track was their desired outcome. The overt support for the housing market began to be reduced in late 2009 as well, with the tax-exempt holding period put back to its original five years in December. In January, the minimum deposit for second-home purchases was returned to its usual level of 40 per cent from the 'concessionary' rate introduced in late 2008.

The bank reserve requirement was lifted for the first time since the crisis in January 2010, with follow-up increases in February and May. Sectoral tightening commenced in earnest with the clampdown on the property market in April. The new measures reversed

all accommodative housing policies and introduced more onerous credit criteria than existed before the crisis, for both investors and first-home buyers. The loophole was that the new measures were designed principally for the Beijing market and the wording of the edict gave substantial autonomy to other jurisdictions to interpret them based on local conditions. The predictable result was that while housing sales in Beijing fell sharply, other cities recovered quickly after an initial dip as local governments failed to fully apply the strictures. Even so, slowly but steadily, tight policy is getting on top of housing sales nationwide, with price increases and turnover showing material signs of deceleration in early 2011.

The Government's overall approach to housing encompassed demand and supply-side measures. Local authorities have been asked to submit policies and targets for improving housing affordability in their jurisdictions. The Twelfth Five-Year Plan (2011–15) incorporates a target to boost the supply of affordable public housing by 36 million units, with a 'mandatory' 10 million units to be completed in 2011 ('Chinese Vice Premier calls for building of 10 mln affordable housing units this year', *Xinhua*, 25 February, <http://news.xinhuanet.com/english2010/china/2011-02/25/c_13748574.htm>). Experimental property holding taxes were introduced in Shanghai and Chongqing, with plans to go nationwide; policies to inhibit land-hoarding practices were introduced; as were the institutions of price caps, ownership limits and fixed prices edicts; and land-supply targets for affordable housing projects were increased sharply.

Indications are that the demand/supply fundamentals at the aggregate level are shifting into an alignment that will improve affordability in coming years, with a surge in housing starts in 2010 running well ahead of sales. The concern is that the composition of the new supply—once the observed jump in starts transitions to completions—will be skewed too heavily towards the high end of the market. That would predict a mismatch between the real demand from owner-occupiers and the actual properties available for sale.

Local government project financing platforms, which were a major transmission mechanism for the monetary easing of 2009, were first mentioned as a macro-prudential risk in the early months of 2010. Banks were soon directed to reduce lending to these vehicles and to closely monitor the performance of loans already extended. As local governments dominate public capital formation, accounting for approximately 90 per cent of projects, this move was a clear indication that the policy stance was shifting. It was also confirmation that a further negative legacy of the stimulus package was coming to light: weakened financial system balance sheets due to policy loans.

Looking at the issue from another angle, one indication of the tightness of policy before the crisis was the decline in the size of new investment projects being instituted in China's coastal provinces for the first two months of calendar years 2007 and 2008. A signal that investment was set to rebound at a terrific pace was the jump in the size of new investment starts in early 2009. The strength of the pipeline was reinforced by the impressive project size reported in early 2010. The fact that the renewed tightening of policy of the second half of 2010 was having an impact can be read in the reduced size of project starts from early 2011. The recent decision to scale back on the expansion of the high-speed rail network ('High speed railway infrastructure investment to be trimmed', *China Securities Journal*, 5 April 2011, <http://www.cs.com.cn/english/ei/201105/t20110504_2866408.html>), both

in 2011 and over the course of the Twelfth Five-Year Plan, in the wake of the disgrace and dismissal of the Railways Minister in February 2011, is a sectoral illustration of what is becoming very evident in the aggregate figures.

From a cyclical point of view, the authorities are facing a challenging outlook. Looking at the next two years through the three-sector framework, the likelihood of a simultaneous slowdown seems quite high if policy remains on its present course. The fact is that by pursuing a dual-stimulus strategy of boosting both infrastructure and real estate, the administration must face the reality that they are both vulnerable to slowdown at the same time. That in turn creates the possibility that a recession could be a result when stimulus is withdrawn and policy begins to restrain activity. Consider the facts: the infrastructure upswing peaked some time ago, fiscal policy is on a tightening trajectory, local government financing has been constrained, the number of new starts has dwindled nationally and the size of projects in the coastal provinces has declined. That deceleration was offset by the robust strength of real estate investment in 2010. With sales turnover essentially flat on average across the country since mid-2010, new supply looks, however, to be excessive once the observed volume of starts becomes completions. That would mean that developers would be left with unsold stock on their hands. That in turn would encourage them to redirect their energies from expanding construction to reducing their inventory. If infrastructure activity were still subdued when this adjustment process occurred then heavy industry would be facing an unintended inventory build of its own. A correction in the growth rate would be avoidable.

For the chain of events hypothesised above to play out in reality, the authorities would need to stand aside and allow both the infrastructure and the real estate cycles to proceed according to their own rhythms without further intervention from the centre. An easing of the policy stance, either to reinvigorate the infrastructure pipeline or to lean less heavily on housing activity, could allay fears that a coincident slowdown of these two bellwether industries is on the way. The longer-run opportunity costs of such an intervention, however, make the policy calculus highly complex. First, housing affordability for ordinary citizens would be greatly assisted by a strong increase in dwelling supply that outran realisable demand for a period. Second, the many negative implications of overt 'pro-growth' resource, energy and emissions-intensive policies are now well understood and therefore the threshold conditions for their use are much higher than in previous cycles. Three, the risk that inflationary expectations embed themselves at an uncomfortably high level is real and is taken very seriously. Four, high inflation rates have the effect of a regressive tax and are thus inconsistent with the administration's goal of improving outcomes in the area of equality. Five, financial system balance sheets are already somewhat burdened by policy loans made in recent times. Six, the retardation of the infant market-driven capital allocation mechanism imposed by the move to stimulate must be reversed as part of any normalisation process or 'exit strategy'.

The weight of these arguments would seem to point towards a protracted period of restrictive policy settings even if growth were to record multiple outcomes below, say, 9 per cent. Indeed, a protracted period of below-trend rates of expansion is required

to reduce the considerable inflationary pressures that have accumulated in the system. Making an *ex ante* judgment that a slowdown is required and holding one’s nerve when that slowdown arrives are very different things.

The exchange rate

Somewhat curiously, while all other arms of policy were set to aid expansion by late 2008, the exchange rate policy was set with an indirect contractionary bias. By abruptly ending flexibility in the fixing rate of the US dollar to the renminbi (RMB) from August 2008, at a time when the US dollar appreciated on a broad front, China’s nominal and real effective exchange rates appreciated sharply (based on the Bank for International Settlements [BIS] measures displayed in Figure 2.9) while its exporters were dealing with rapidly declining sales and shrinking margins. This was essentially a repeat of the East Asian crisis foreign exchange policy response, when China maintained its peg to the US dollar despite what must have been a great temptation to devalue to maintain a semblance of competitiveness with other emerging markets. While China drew plaudits from its trading partners for its show of restraint in the late 1990s, it received few laurels this time around. Indeed, it was not long after the depths of the crisis that China again came under international pressure to resume nominal appreciation against the US dollar, with countries such as Brazil and India joining the chorus. This pressure came despite the fact that the RMB was significantly above its pre-crisis level in real effective terms, while most emerging markets had not reclaimed more than a modest portion of their intra-crisis real effective depreciations.

Figure 2.9 Decomposition of annual changes in the real exchange rate

Note: Annual percentage change in the BIS broad real effective exchange rate measure decomposed into moves in the nominal effective exchange rate from the same source and changes in the inflation differential embedded in the real estimate, measured as a residual.

It is not obvious from the trade data that China was suffering greatly from an appreciated real exchange rate. While foreign orders and new exports orders lagged their domestic equivalents in the 5000 enterprise survey and the manufacturing Purchasing Managers Index (PMI) survey respectively, and imports reclaimed their pre-crisis levels five months before exports, domestic demand differentials between China and its trading partners were stark and these results might be inferred without reference to the currency. Export growth itself looked robust enough, reclaiming the 20 per cent threshold in six-month annualised terms in August 2009, and maintaining an average of 32.4 per cent since that time (the comparable number for imports is 41.8 per cent). The contribution of net exports to GDP growth was negative in all four quarters of 2009 and again in the March quarter of 2010, but it was positive in the remaining quarters.⁴ In annual terms, the net exports contribution swung from 2.5 percentage points in 2007, to 0.8 percentage points in 2008, to -3.7 percentage points in 2009, and back to 0.8 percentage points in 2010.

Export margins, which might be interpreted as a threshold level for the affordability of nominal exchange rate appreciation, did come under stress though, indicating that profitability was a major concern through the worst of the shock. One proxy of export margins⁵ narrowed from 6.8 per cent in December 2007 to a trough of 3.6 per cent in January 2009, before recovering to 6 per cent by February 2011.

The nominal US dollar/RMB exchange rate was maintained at 6.83—17.5 per cent below the old pegged level of 8.28—between August 2008 and June 2010.⁶ The rate of appreciation observed since that time has seemingly been calibrated to both trends in the overall foreign exchange market and the state of domestic inflation. The pace of appreciation has been stepped up materially as the inflationary pulse has quickened, with annualised moves in the US dollar/RMB rate at times approaching 10 per cent. With food prices an element in the inflation increase, the close relationship shown in Figure 2.10 is intuitive. As of 5 May 2011, the US dollar/RMB was 5 per cent below the 6.83 it was held at through the crisis and 21.6 per cent below the old peg.

Figure 2.10 Food prices and the nominal exchange rate

Conclusion

This chapter has presented a high-level review of developments in the Chinese economy in a turbulent period. Beginning with the boom in heavy industrial investment of 2003, the broad contours of economic activity and policy were traced up to the early months of 2011. The context for the discussion was a framework that prioritises fixed investment as the major dynamic agent in Chinese economic growth. The period under review opened and closed with aggregate policy tilted towards actively restraining activity, with the weight of fiscal and monetary tightening bearing down on the three key elements of the investment cycle: real estate, infrastructure and, by extension, heavy industry. In between, the authorities responded to a huge external shock, in tandem with a policy-induced internal slowdown, with a major stimulus package that served to entrench rather than improve upon existing structural issues. Thus, despite its conspicuous cyclical success in reinstating high growth, the package has left a negative structural legacy and a few cyclical ones as well.

As the decade unfolds, the authorities will be challenged to reassume their role as instigators of positive structural change and reduced inequality, while maintaining elevated rates of economic growth alongside acceptable rates of inflation. The immediate challenge is to deal with uncomfortably high inflation. A little further out a fundamental question will be presented: how to deal with the potential for a simultaneous slowdown in the three core sectors without sacrificing structural imperatives. How the authorities address that question will have relevant implications for how smoothly China is able to navigate the transition from low to high middle-income status. That is a question that the whole world has a stake in.

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Appendix 2.1

Fixed investment categories in Figure 2.1 are defined as:

Heavy industry

- Petroleum, coking and nuclear fuels processing
- Chemical material and product
- Medical and pharmaceutical products
- Chemical fibre industry
- Rubber products
- Plastic products
- Non-metal mineral product
- Smelting and pressing of ferrous metals
- Smelting and pressing of non-ferrous metals
- Metal products
- Universal equipment manufacturing
- Special purpose equipment
- Waste resources and materials recovery and process
- Transportation equipment

Hard infrastructure

- Gas and water production and supply
- Water conservancy, environmental management
- Transport, storage and postal service

Fixed investment categories in Figure 2.7 are defined as:

Manufacturing is a secondary industry excluding extractive industries.

Infrastructure includes those industries defined as hard infrastructure in Figure 2.1, plus soft infrastructure sectors

- Information transmission, computer and software
- Education
- Health care, social security and welfare (HW)
- Public administration and social organisation

Real estate includes investment by the construction industry.

Other services and primary includes agriculture, the extractive industries and services sectors not allocated elsewhere.

Endnotes

1. Unless specified otherwise, the references to economic data in this chapter, and the information contained in the figures, are the author's calculations based on underlying information accessed via the CEIC subscription data service. Seasonal adjustment is performed in E-Views 6 using Census X-12.
2. As of 1.40pm Australian eastern standard time on 29 April 2011, Google searches for the terms 'China export led growth strategy', 'China investment led growth strategy' and 'China investment and export led growth strategy' returned 1.46 million, 2.41 million and 821 000 hits, respectively. So, investment-led growth wins a very unscientific straw poll. It also illustrates the media's stubborn refusal to engage in complexity and nuance, with the relatively low score for the dual drivers of growth thesis.
3. On the latest data (February 2011), imports make up a very modest 4.5 per cent of completed vehicle units sold. Exports constitute an even lower 3.3 per cent share of domestic production. These figures hide the high import composition of domestically finished vehicles. In 2009, the value of finished-vehicle imports (US\$15.5 billion) was less than the value of imported parts and accessories (US\$17 billion).
4. Note that annual national accounts estimates on an expenditure basis are not yet available for 2010. Further, the March quarter of 2011 is likely to see a negative contribution from net exports.
5. The simple average of profits as a proportion of revenue in the following highly trade-exposed sectors: textiles, garment, footwear and headgear manufacturing, leather, fur, down and related, furniture manufacturing, cultural, educational and sport articles, electric machinery and equipment, communication, computer and other electronic equipment, instruments, meters, cultural and office machinery.
6. Additionally, the return to flexibility has been accommodated with a quite aggressive move towards internationalising the currency, principally through championing the use of the RMB in trade settlements.