



National Audit Office

Report

by the Comptroller
and Auditor General

Department for Transport and HS2 Ltd

Investigation into land and property acquisition for Phase One (London – West Midlands) of the High Speed 2 programme

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Department for Transport and HS2 Ltd

Investigation into land and property acquisition for Phase One (London – West Midlands) of the High Speed 2 programme

Report by the Comptroller and Auditor General

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Sir Amyas Morse KCB
Comptroller and Auditor General
National Audit Office

12 September 2018

HS2 Ltd's programme to acquire the land and property it needs to build and operate the high speed railway is a vital part of the overall programme. We received correspondence raising concerns about HS2 Ltd's estimate of the cost of acquiring land and property, and its capability and capacity to manage the programme.

Investigations

We conduct investigations to establish the underlying facts in circumstances where concerns have been raised with us, or in response to intelligence that we have gathered through our wider work.

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This report can be found on the National Audit Office website at www.nao.org.uk

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What this investigation is about

1 High Speed 2 is a programme to construct a new high speed railway between London Euston, and Leeds and Manchester, splitting to form a Y-shape in the West Midlands. This investigation is about Phase One of the programme, which is to construct the railway between London and the West Midlands. HS2 Ltd is preparing its full and final business case for approval in 2019. Phase One is scheduled to open in 2026.

2 In order to build Phase One of the railway, the government will need to acquire approximately 70 square kilometres (more than 17,000 acres) of land along the route of the railway. HS2 Ltd estimates that it will have to compensate between 6,000 and 10,000 claimants who have land and property interests affected by the route, including property owners, leaseholders and tenants, and issue and process up to 50,000 compulsory purchase notices between 2017 and 2023. HS2 Ltd, on behalf of the Secretary of State, also offers a range of discretionary schemes that enable some property owners not on the main route of the railway to apply either for compensation or for the government to buy their property.

3 We received correspondence from a number of individuals concerned about HS2 Ltd's land and property programme. They raised concerns with us that:

- HS2 Ltd had understated the property cost estimate, including in information provided to Parliament with deposit of the hybrid Bill for Phase One;
- governance and assurance around the estimate and the land and property function was weak and that HS2 Ltd did not have the capability or capacity to deliver the land and property acquisition programme; and
- HS2 Ltd was failing to make payments to landowners on time.

4 In response we investigated:

- how HS2 Ltd developed its estimate of the cost to acquire the land and property required to build Phase One of High Speed 2, and how it communicated this to Parliament;
- HS2 Ltd's capability to produce robust estimates of the cost of land and property and to acquire the required land; and
- HS2 Ltd's performance to date in acquiring land and property.

5 We last reported on progress across the High Speed 2 programme as a whole in June 2016. This report does not cover aspects of the High Speed 2 programme other than the land and property acquisition programme, such as the overall position on costs, schedule, the latest business case for the programme and preparations for delivery of the programme's benefits. We intend to return to look at the broader programme in the future.

Summary

Key findings

1 The estimated cost to acquire land and property for Phase One has increased significantly since the start of the programme. In 2012, HS2 Ltd's estimate of the net cost (cost after resales¹) to acquire land and property that supported its first baseline cost and delivery plan was £1,120 million in 2011 prices. By 2013, around the time the hybrid Bill was deposited, this had increased to £1,608 million (2011 prices). The most recent estimate in 2017 was £3,295 million (2015 prices). For the purposes of budget setting, HS2 Ltd and the Department for Transport (the Department) apply a contingency provision to these estimates to cover the cost of uncertainty and assessed risks, should they materialise. For the 2015 Spending Review, HM Treasury approved an overall funding package of £27,180 million for Phase One (2015 prices), including £4,316 million for land and property. This £4,316 million included £878 million of contingency (paragraphs 2.6 and 2.16).

2 The estimate has increased for a range of reasons, such as scope increases and the introduction of additional compensation schemes. We have been able to identify a number of drivers of increases in the cost estimate. For example, since the start of the programme, including through public consultation and the parliamentary process, there have been significant additions to the scope of the programme, such as additional junctions and route changes. These changes have resulted in an increase in the amount and type of property required, and therefore the cost to acquire the property needed has increased by approximately £175 million (2011 prices). In 2010, 2013 and 2015, the Secretary of State introduced discretionary compensation schemes designed to enable property owners to claim compensation if they or their property are affected by High Speed 2, but are not on the route itself. On current estimates, the schemes have increased costs by around £241 million (net after resales, 2015 prices). Other changes include a shift in the price basis for cost estimation from 2011 to 2015 prices, an increase in the area of land to be acquired from around 25 square kilometres to around 70 square kilometres when the basis for the estimate changed from a uniform 120 metre corridor on the proposed route to a more detailed understanding about the specific properties required (paragraphs 2.7 to 2.16).

¹ Unless otherwise stated, all cost estimates quoted in this report are net of resales that HS2 Ltd plans to make once construction of Phase One is complete, and any income that HS2 Ltd might generate from management of property it holds.

3 HS2 Ltd’s estimate of the cost to acquire land and property has improved, and now provides a reasonable basis for monitoring the cost of the property acquisition programme. Since 2009, HS2 Ltd has used the services of property consultants to produce estimates of the cost to acquire land and property for Phase One. In 2016, in the run-up to the hybrid Bill gaining Royal Assent in February 2017, HS2 Ltd commissioned its consultants to carry out its most detailed estimate to date. This involved six firms working in regions to produce estimates of property costs, and was based on a more developed understanding of the likely route of the railway and scope of the programme. Prior to this, HS2 Ltd instructed its consultants to produce estimates based on a set of assumptions, and the limited amount of information available, that reflected the earlier stage of the programme’s maturity. HS2 Ltd’s approach has been to develop its estimates in line with the maturity of the design. To ensure value for money, this needs to be balanced against the costs of attempting to estimate to a greater level of detail prior to having statutory powers. HS2 Ltd did not consider it useful to create a detailed cost estimate prior to Royal Assent being granted because the Bill process would result in significant changes, which it did, and because it would not have powers of access to properties to carry out detailed valuations until after Royal Assent had been granted (paragraphs 2.5, 2.8 to 2.10 and 2.14 to 2.16).

4 HS2 Ltd forecasts that costs will remain within available funding, but it is still very early in the property acquisition programme. As at July 2018, HS2 Ltd was forecasting that the cost to acquire land and property would be £3,356 million. This was £308 million less than its budget of £3,664 million, which includes £369 million of contingency to manage risks. This forecast is based on a combination of HS2 Ltd’s estimate of the cost to acquire property, and a small number of more detailed valuations of specific properties and claims that have been received. As of the end of July 2018, HS2 Ltd has spent £1,710 million on land and property for Phase One. HS2 Ltd has acquired 492 properties via various acquisition schemes and commercial agreements for around £881 million, and 165 via compulsory purchase, for around £829 million. A high proportion of the properties acquired under compulsory purchase powers to date are higher value commercial properties in London. The early stage of the programme means that there remains significant uncertainty about what the final cost will be. There is potential for further changes to the scope of the programme, and therefore the amount of land required, the number of property owners that will apply for compensation under discretionary schemes is uncertain, and the final settlement value of almost all properties, including some high value properties, has not yet been decided (paragraphs 2.22 to 2.24, and 3.11).

5 The Department deposited an estimate of the cost to acquire land and property, and a list of the property it expected to acquire, with the hybrid Bill, as required by Parliament. The government submitted an estimate of likely expenditure on Phase One of the programme (the 'Estimate of Expense'), including an estimate of the cost to acquire land and property. The Estimate of Expense stated that the estimate for land and property was £2,788 million in 2011 prices, including a provision for risks should they emerge. Subsequently, the Department submitted estimates of expense that resulted from Additional Provisions (changes to the proposed scope of the programme) to the hybrid Bill. The Department also issued the 'Book of Reference' setting out all the land and property it could require for construction and operation of the railway, so that people affected could decide whether to petition Parliament. Parliament did not require the Estimate of Expense to be based on the Book of Reference, and Parliament did not specify the level of maturity it required of the Estimate of Expense (paragraphs 1.11 to 1.13 and 2.11 to 2.13).

6 The property acquisition programme is currently on track but there is a long way to go and risks remain. At this early stage in the delivery of Phase One, HS2 Ltd is on track to gain access to the land it needs to carry out surveys for the construction of the railway, and possession of land required for construction work to start. HS2 Ltd's compulsory purchase powers were granted in February 2017 and run out in February 2022 but, to date, only 165 properties have been acquired via these powers. There are significant risks to the success of the acquisition programme, which HS2 Ltd has identified and is taking steps to manage. For example, substantial changes to the scope of the programme, or the engineering methods used by contractors, could significantly change the land that is required, which could impact the overall construction schedule (paragraphs 1.6, 1.12 and 3.11 to 3.13).

7 HS2 Ltd's land and property team has become better established since 2015. Prior to 2015, HS2 Ltd's land and property function did not have a clear approach to managing land and property acquisition and had a number of changes in leadership. During 2015, HS2 Ltd began work to increase the capacity and capability of the land and property function. It focused on establishing clear processes for acquiring property and handling compensation claims, increasing the size of the land and property team to manage the acquisition process, and developing IT systems to enable it to manage the caseload of acquisition and compensation more effectively. In 2016, HS2 Ltd established the Land and Property Board, chaired by the company's finance director, to approve purchases and provide governance for the acquisition programme. The land and property team currently has 17 out of 133 positions vacant (paragraphs 3.4 to 3.10).

8 Only half of advance payments to claimants have been completed within the required three-month period from HS2 Ltd receiving a claim request. Under compulsory purchase, HS2 Ltd is required to pay claimants 90% of HS2 Ltd's valuation of the property within three months of receiving a claim, or the date of possession, whichever is later. The remainder is then paid upon agreement of the final value of the property. Between March 2017 and August 2018 payments have been later than the three months or forecast to be later in 52 out of 108 cases. HS2 Ltd has analysed the causes of delays. It considers that in 35 cases, the main reason is that claimants have not provided the required information in a timely manner. HS2 Ltd considers that the remaining 17 cases have been caused, at least in part, by HS2 Ltd (paragraphs 3.14 to 3.15).

Concluding remarks

9 It is understandable that concerns have been raised with us about HS2 Ltd's land and property acquisition programme given that it affects so many individuals and businesses. Although HS2 Ltd has made efforts to improve its land and property function since 2015, there is work to be done to support claimants to receive timely compensation where they are due an advance payment.

10 While HS2 Ltd's estimate of the cost of land and property has increased significantly over time, cost estimates, particularly in this sort of major land acquisition programme, are inherently uncertain and subject to change as more information becomes known about both the design and operation of the railway, and the nature of the land and properties required. HS2 Ltd's current estimate is within its agreed funding envelope from HM Treasury and provides a reasonable basis from which it can monitor the potential cost to compensate property owners and tenants affected by the construction of the railway. However, it is still very early in the property acquisition programme and too soon to determine with certainty what the final outturn will be.

Part One

Introduction to HS2 Ltd's acquisition of land and property

High Speed 2

1.1 High Speed 2 is a programme to construct a new high speed railway between London Euston, and Leeds and Manchester, splitting to form a Y-shape in the West Midlands (**Figure 1** overleaf). The Department for Transport's (the Department's) objectives for High Speed 2 are to:

- provide sufficient capacity to meet long-term demand, and to improve resilience and reliability across the network; and
- improve connectivity by delivering better journey times and making travel easier.

The Department also has broader ambitions for the programme, with increasing local growth and enabling regeneration as a key objective. We have previously reported on the High Speed 2 programme in 2013 and 2016.²

1.2 The Department and HS2 Ltd plan to build the railway and begin operating services in three phases:

- Phase One, from London to the West Midlands, is planned to open in 2026;
- Phase 2a, a short extension from the West Midlands to Crewe, is planned to open in 2027; and
- Phase 2b, two lines from Crewe to Manchester, and Birmingham to Leeds, is planned to open in 2033.

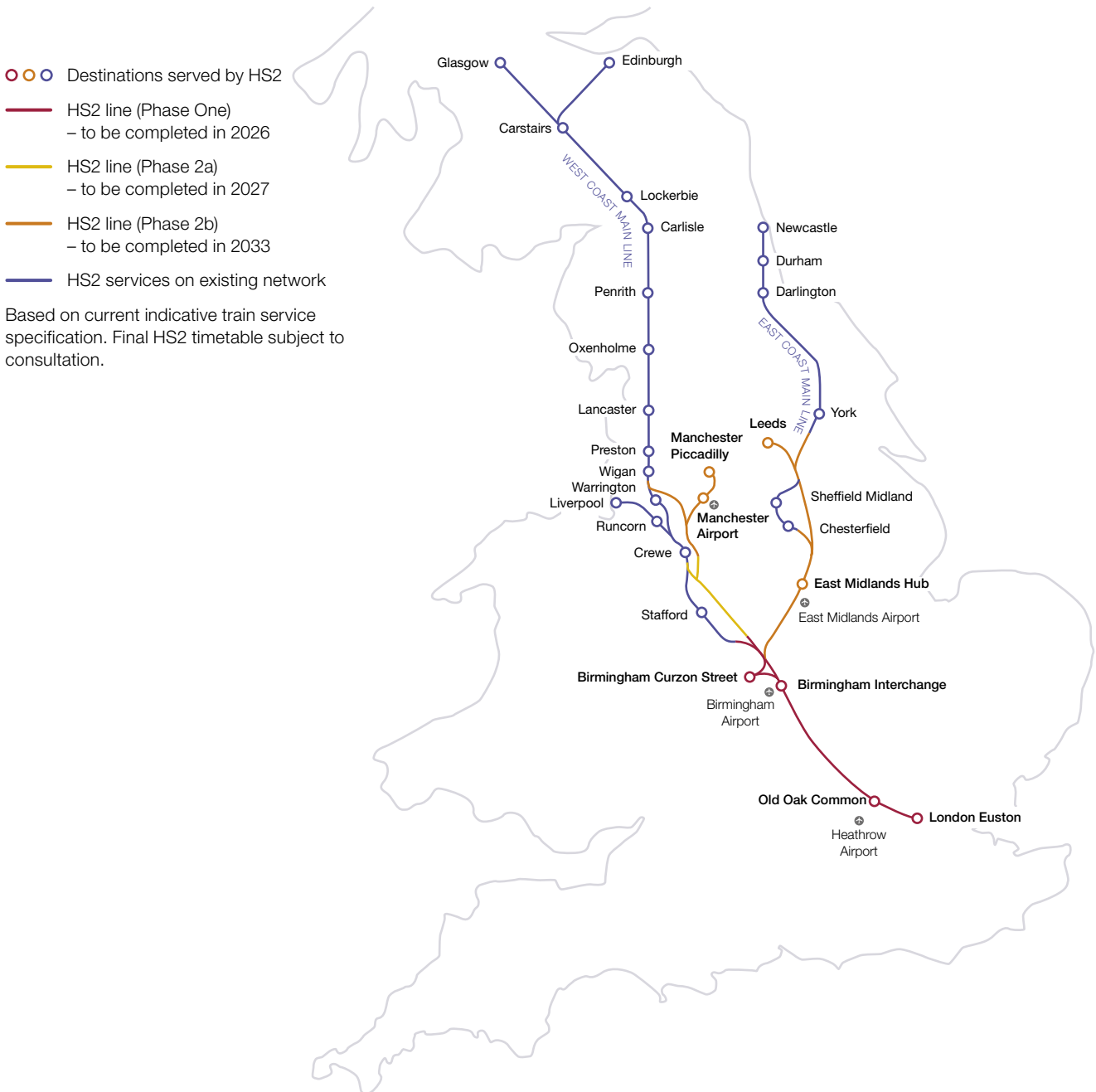
1.3 In the 2015 Spending Review the Department secured long-term funding from HM Treasury of £55.7 billion (2015 prices) for the full High Speed 2 programme. The funding for Phase One of the programme is £27.2 billion including contingency.

1.4 The Department is responsible for funding and sponsoring the programme, and is ultimately accountable for successful delivery of the benefits. In 2009, the Department set up HS2 Ltd to deliver the programme, and to maintain and manage the railway infrastructure once it opens.

² Report by the Comptroller and Auditor General, *High Speed 2: a review of early programme preparation*, Session 2013-14, HC 124, National Audit Office, May 2013 and Report by the Comptroller and Auditor General, *Progress with preparations for High Speed 2*, Session 2016-17, HC 235, National Audit Office, June 2016.

Figure 1
High Speed 2 route

The route will be built and operated in three phases



1.5 The Department is due to submit a full and final business case for Phase One of the programme to its Board, HM Treasury and the Cabinet Office for final approval to proceed with the programme in mid-2019. In addition to acquiring land and property, HS2 Ltd is currently carrying out enabling works; working with its main civil engineering contractors on finalising the design of Phase One; and preparing for the procurement of contractors to design and build stations and trains, and install railway systems. To date, it has spent £1,710 million on acquiring land and property for Phase One.

The scale of the land and property acquisition programme

1.6 In order to build the railway, the government will need to undertake a major land and property acquisition programme. For Phase One alone, HS2 Ltd estimates it will need to acquire approximately 70 square kilometres (more than 17,000 acres) of land along the route of the railway, and other facilities being built to support the construction and operation of the railway, including maintenance depots for infrastructure and rolling stock. The land and property acquisition will result in:

- 16,500 parties, including business owners, tenants and property owners being affected by the programme;
- 6,100 to 10,000 interested parties who may claim and be due compensation for disruption, including occupiers, leaseholders, tenants and other licensees;³
- 40,000 to 50,000 formal compulsory purchase notices to serve to those who stand to receive compensation and others, such as mortgage lenders. Each interested party that is subject to compulsory purchase will receive multiple notices that reflect the stage of the process; and
- Over 30,000 notices served to gain access to land in order to carry out surveys for the construction programme.

How HS2 Ltd acquires land and property

1.7 The government's compensation code for compulsory purchase defines the process through which HS2 Ltd acquires land and property on behalf of the Secretary of State for Transport. The compensation code is not a single document but a collection of statutes, principally the 1961 and 1973 Land Compensation Acts and the 1991 and 2004 Planning and Compulsory Purchase Acts, and the Housing and Planning Act 2017. The acts are supplemented by case law. Taken together, this code sets out the basis for the assessment of compensation that people affected by public works can apply for.

³ A single property that HS2 Ltd acquires will typically impact a number of different parties who hold a single interest or multiple interests in the property. Each interest receives a notice. This interest may or may not be entitled to compensation under the Compensation Code. All interests are identified in the Book of Reference and then reviewed and updated on completion of detailed land referencing prior to the service of a notice by HS2 Ltd.

1.8 HS2 Ltd purchases property from landowners on behalf of the Secretary of State. The Secretary of State also provides compensation to property owners and other interested parties for disruption caused by High Speed 2. **Figure 2** provides a summary of the main categories of compensation that HS2 Ltd is required to pay to property owners.

1.9 The principle underpinning HS2 Ltd’s land and property acquisition programme is to acquire the right property at the right time at the right price. In practice this means:

- acquiring no more property than it needs;
- acquiring and taking ownership of land and property in time for the construction works to begin on schedule; and
- acquiring property at a price that is fair to both the owners and interested parties, and the taxpayer.

Powers of compulsory purchase

1.10 In order to gain the powers to acquire land and property by compulsory purchase, the Department required primary legislation to pass through Parliament. The Department deposited the hybrid Bill⁴ for Phase One (London to the West Midlands) in Parliament in November 2013. Among the documents deposited as part of the Bill, the Department included a detailed register of the potential properties that it may need to acquire, and the interests that it may need to compensate in order to construct the proposed Phase One route.

Figure 2
The main categories of compensation

Category of compensation	Description
Value of land or property to be purchased	HS2 Ltd, acting on behalf of the Secretary of State for Transport, is required by government to follow the compensation code in determining the value of property it wishes to acquire.
Depreciation in value of retained land	Compensation for reduction in value of property not part of a compulsory purchase, but owned by someone who has had other land compulsorily purchased.
Disturbance	Any cost or loss which arises as a direct consequence of the land acquisition not included in the value of the property taken, for example, removal expenses, or extinguishment of business.
Statutory Loss Payments	Payments for inconvenience if HS2 Ltd’s acquisition of property is not at a time of the owners’ choosing.
Fees	Professional fees incurred by claimant, such as solicitor fees.

Source: National Audit Office based on HS2 Ltd information

4 A hybrid bill contains the characteristics of both a public and a private bill. The changes to the law proposed by a hybrid bill would affect the general public but would also have a significant impact for specific individuals or groups.

1.11 During the hybrid Bill process, members of the public, businesses and interest groups can petition Parliament to consider changes to the proposed route. Parliament, through the House of Commons and House of Lords Bill Committees considers and can recommend and agree changes to the proposed route which can substantially change the amount of land required to build the railway. Parliament can also propose its own changes. The government can also introduce changes to the design and route of the railway as it continues to develop its plans for the programme. During the hybrid Bill process, the government introduced five 'Additional Provisions' to the hybrid Bill, each of which included a number of route and scope changes. The changes added to the estimated cost of the programme, including land and property costs, as well as, for example, engineering and construction costs.

1.12 In February 2017, the Bill gained Royal Assent, becoming the High Speed Rail (London - West Midlands) Act 2017. Royal Assent confirmed the final route of Phase One, and provided the Secretary of State for Transport with the compulsory purchase powers needed to acquire the required land and property on the route. Properties that could be subject to compulsory purchase are those that sit within the land to be acquired or used as set out in the High Speed Rail Act. The compulsory purchase powers last five years from the date of Royal Assent, meaning all the notices for acquisition of land and property for Phase One need to be served by February 2022.

1.13 The hybrid Bill deposited with Parliament also included an Estimate of Expense, detailing the expected cost of Phase One. The estimated cost to purchase land, minerals and permanent rights including easements for works, as set out in the Estimate of Expense, was £2,788 million in 2011 prices.⁵ This is discussed in more detail in paragraphs 2.11 to 2.13.

Discretionary compensation schemes

1.14 In addition to compulsory purchases, the Department has several other ways to acquire the land and property it requires, including statutory blight applications and individual agreements with claimants. The government also set up discretionary compensation schemes for property owners affected by the construction and operation of Phase One, in recognition of the impacts of the railway on individual property owners. **Figure 3** on pages 14 and 15 sets out the ways in which the government can compensate people affected by the railway.⁶

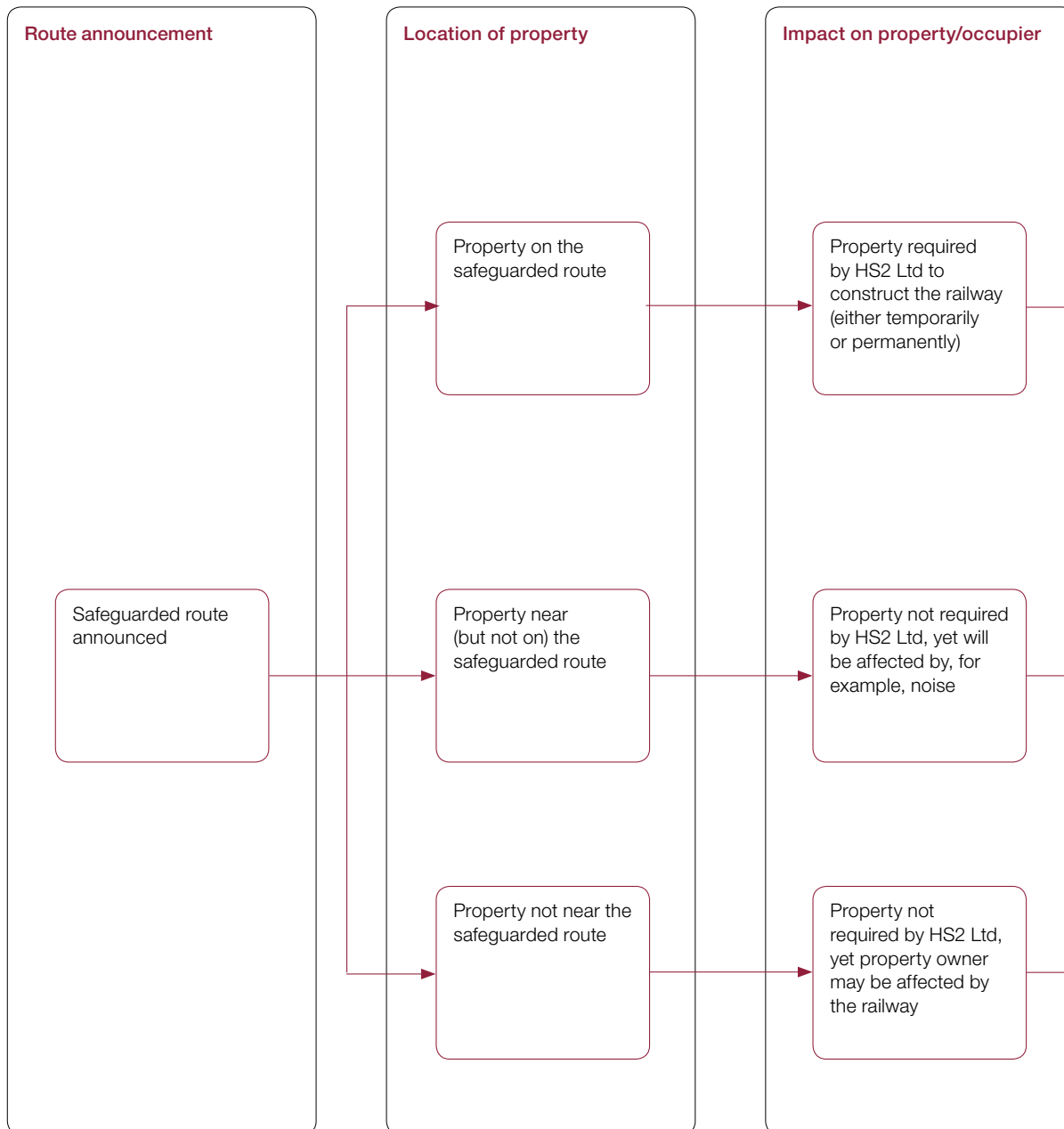
⁵ Easements are agreements which allow access to land to carry out works without the need to take possession of the land.

⁶ More information on the discretionary schemes can be found at: www.gov.uk/claim-compensation-if-affected-by-hs2

Figure 3

How the government acquires land and property for Phase One of High Speed 2

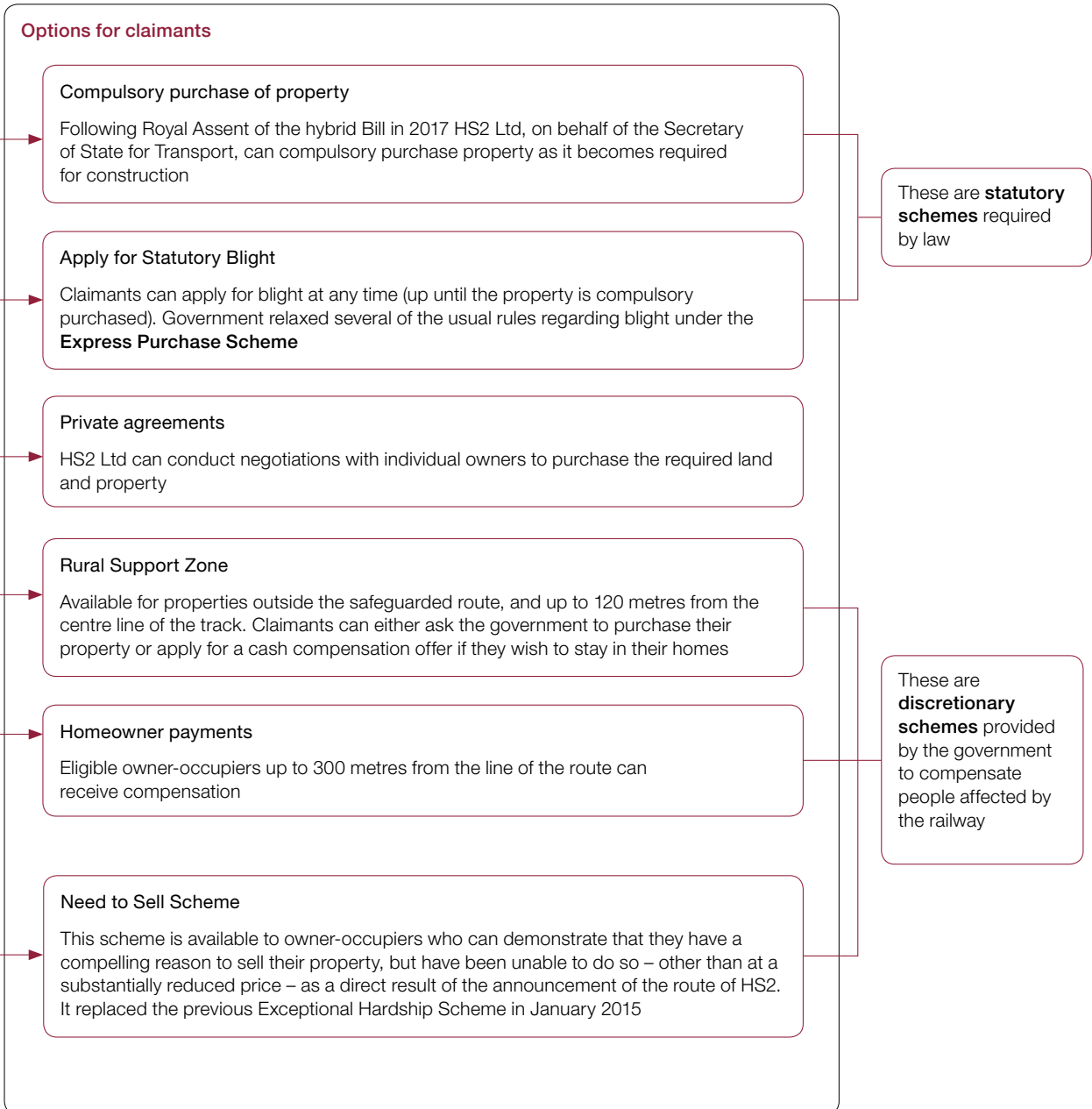
The government has several statutory and discretionary schemes to assist people affected by the railway depending on distance from the planned route.



Notes

- 1 All homes that the government agrees to purchase can be considered for the Rent Back scheme. This allows claimants to continue to live their homes after they have been sold to the government.
- 2 The Need to Sell Scheme replaced the Exceptional Hardship Scheme, which was introduced in 2010.

Source: National Audit Office analysis based on HS2 Ltd data



Part Two

The cost of land and property

2.1 This part of the report covers:

- background about how and why HS2 Ltd estimates the cost to acquire land and property required to build the railway;
- details about how the cost estimate has changed over time; and
- information about the property cost estimate and land and property budget at key stages in the development of the High Speed 2 programme.

Estimating the cost of land and property

2.2 Estimating the cost of acquiring the land and property required to build the railway is an important stage in the development of the programme. Cost estimates enable HS2 Ltd and the Department for Transport (the Department) to:

- determine the level of funding required for acquiring land and property at the start of the programme and throughout as HS2 Ltd's understanding of the land required matures;
- understand how the land and property budget should be profiled during planning, design and construction of the railway; and
- provide a baseline against which to monitor progress against the land and property budget as land and property is acquired.

2.3 Estimates become more refined over time as plans become more certain.

As HS2 Ltd has developed Phase One of the programme, its estimate of the costs to deliver each component part of the programme (including land and property, major civil engineering works, construction of stations and the manufacture and maintenance of rolling stock) has changed. HS2 Ltd did not set out a clear plan at the outset for how it expected the estimate to develop. From March 2015, however, HS2 Ltd set out the level of maturity, and therefore uncertainty of its cost estimates for all the main elements of the programme, including the land and property estimate, and reported this to the HS2 Ltd Board for approval.

2.4 Once HS2 Ltd had powers of access to properties following the hybrid Bill gaining Royal Assent, it moved from an estimating to a valuation process. HS2 Ltd appoints agents to value land and properties and therefore determine how much compensation will be due. These valuations supersede the estimate. However, until a claim is fully settled between HS2 Ltd and the interested party, it is not possible to know with certainty what the final cost of acquiring land and property will be. **Figure 4** on pages 18 and 19 outlines how the planning maturity affects the estimate of costs to acquire land and property.

2.5 In 2009, at the start of the programme, HS2 Ltd appointed CBRE Ltd (CBRE), a commercial real estate and investment firm, as an external professional advisor to create estimates of the cost to acquire land and property for Phase One. To date, CBRE has produced four reports for HS2 Ltd (in 2009, 2013, 2014 and 2017), and there have been continual improvements to the cost estimate during the entire period as the programme develops. HS2 Ltd approved the methodology and assumptions adopted for the estimates, and has used CBRE's reports as the basis for the cost estimate that goes into the land and property line of each of the seven iterations of its baseline cost and delivery plans for Phase One.⁷

How the cost estimate has changed

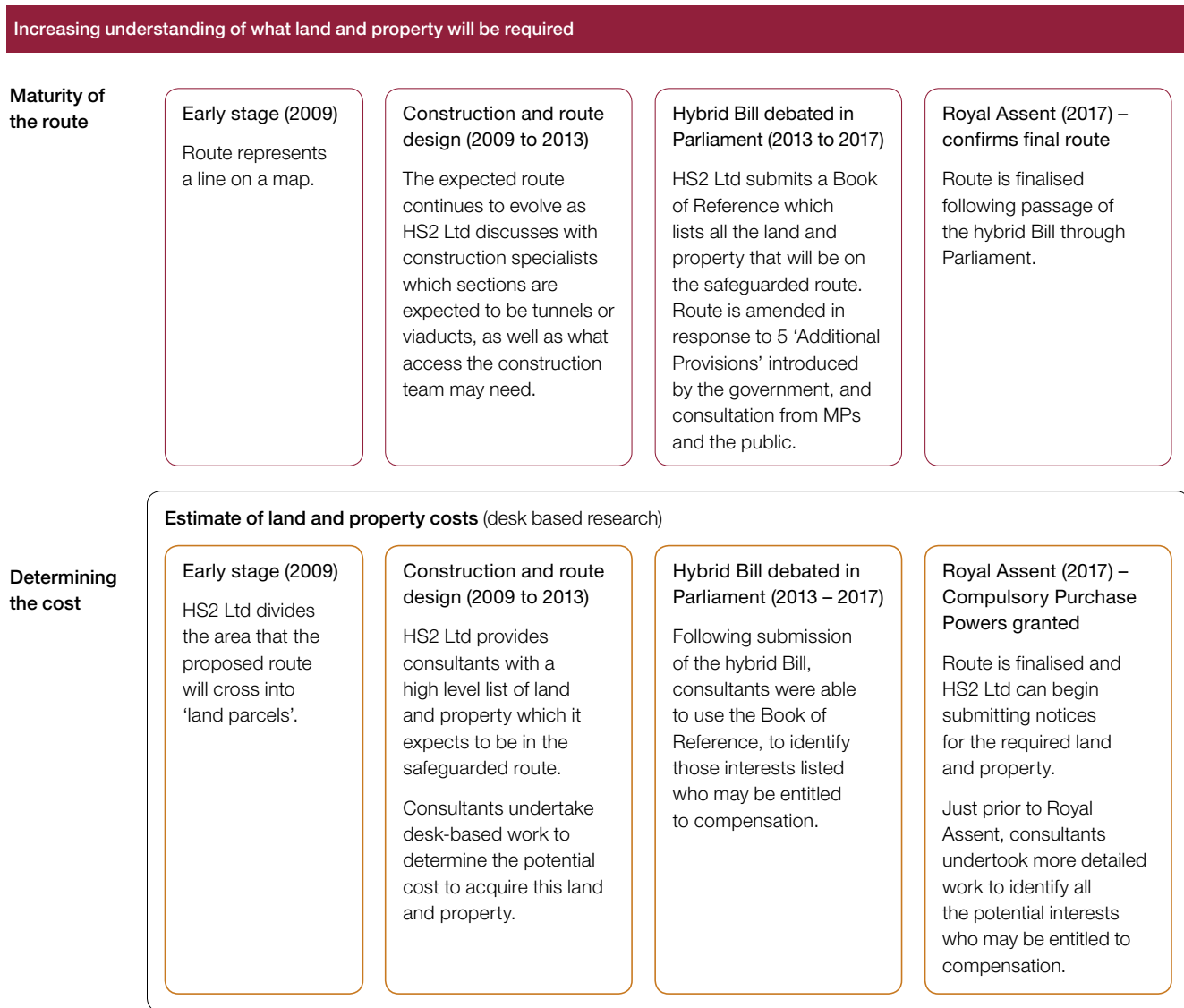
2.6 HS2 Ltd's estimate of the cost to acquire land and property for Phase One has increased from £1,120 million (Q2 2011 prices) at the time of its first iteration of the baseline 1 cost and delivery plan, to £3,295 million (Q1 2015 prices) at the time of its 2017 iteration of the plan.⁸ **Figure 5** on page 20 sets out how the cost estimate has changed with each iteration of the baseline plan. In setting budgets and funding levels, HS2 Ltd and the Department adjust estimates to account for uncertainty. In the early stages of a programme's development, this is in the form of a provision for optimism bias. As the programme develops, risks are assessed and quantified to establish a contingency provision.

⁷ Baseline plans are documents setting out what HS2 Ltd expects the programme to cost, the proposed delivery schedule, and other information such as risks to the programme.

⁸ Unless otherwise stated, all cost estimates quoted in this report are net of resales that HS2 Ltd plans to make once construction of Phase One is complete, and any income that HS2 Ltd might generate from management of property it holds.

Figure 4
How HS2 Ltd determines the cost of land and property

The estimate of the costs to acquire land and property for Phase One has improved as the maturity of the programme has increased



Increasing understanding of what land and property cost will be

Further construction consultation (2017 to 2026)

HS2 Ltd continues to develop the construction solution, which may reduce the amount of land needed. For example, if it becomes clear that a tunnelled section will be longer than expected, or construction access will not be needed.

Up to 2027

People affected by the railway can still submit claims for compensation up to one year after the Phase One route becomes operational.

Detailed valuations (on site valuation)

Detailed valuation

Following Royal Assent, HS2 Ltd can notify potential claimants of the compulsory purchase. This is followed by HS2 Ltd commissioning an on-site valuation of the property.

HS2 Ltd uses this information to develop its forecast of the cost to acquire property.

Negotiation with claimant

HS2 Ltd must pay 90% of the detailed valuation to the claimant within three months.

Negotiation between claimant and HS2 Ltd.

Claimant will provide their own valuation of property value Negotiation with claimant over final value of compensation.

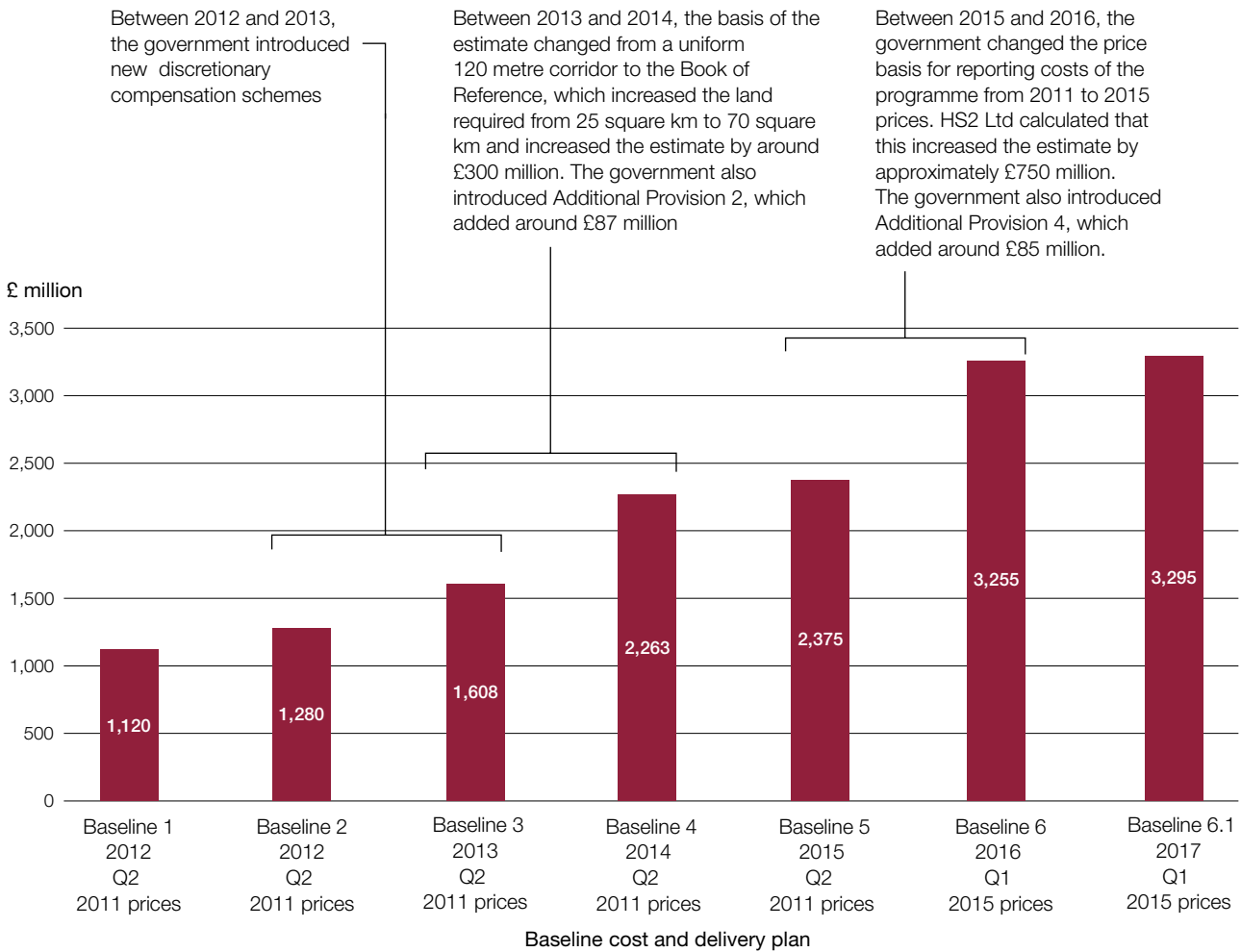
Final cost of land and property

Final figure agreed with both parties



Figure 5
Increases in the land and property estimate since 2013

The baseline estimate has increased significantly for several reasons, including improved understanding of the final route and changes in the cost basis



Notes

- 1 HS2 Ltd and the Department adjust estimates to account for uncertainty, so for budgeting purposes, HS2 Ltd added a provision for risk to each of these cost estimates.
- 2 The cost estimate for baseline 4 (2014) includes the additional cost resulting from the creation of the Book of Reference. At baseline 4 this was identified as a risk rather than a confirmed cost, because the estimate had not gone through governance processes. We have included it here as part of the point estimate for baseline 4 for ease of presentation.
- 3 The impact of the change in the price basis from 2011 to 2015 prices between baseline 5 in 2015 and baseline 6 in 2016 is based on HS2 Ltd's estimate of property price inflation over the period shown in the chart.

Source: National Audit Office analysis of High Speed 2 Ltd information

2.7 The increase over time is due to:

- **amendments to the route** – the hybrid Bill for Phase One deposited in November 2013 contained the government’s preferred route. As Parliament debated the hybrid Bill it made amendments to the route. The High Speed Rail Act (London to the West Midlands) 2017 confirms the final agreed route;
- **improved understanding about the land and property required** – as the High Speed 2 programme has developed, HS2 Ltd has increased its understanding of how much property it requires to build the railway, and the nature of the property and property interests which will be entitled to compensation. When the basis for the cost estimate changed from a 120 metre corridor (the ‘safeguarded route’)⁹ to the Book of Reference, the area of land required increased from around 25 square kilometres to around 70 square kilometres, and HS2 Ltd developed a better understanding of the nature of the land required. Because much of the high value property in urban areas falls within the original 120 metre corridor, the increase in the area of land required is not proportionate to the increase in costs;
- **undertakings and assurances** – the hybrid Bill made several requirements for the government to purchase land not on the route, such as woodland, for the purposes of offsetting land which will be permanently required for building and operating the railway;
- **discretionary schemes** – between 2013 and 2015, the government announced discretionary schemes to assist property owners affected by the route. These schemes were not statutory obligations; and
- **changes in methodology** – this includes changes to the price indexation from 2011 prices to 2015 prices and more detailed estimates undertaken on individual properties.

Because of the level of change that has occurred to the programme’s design between estimates, it has not been possible to reconcile the causes of each change to the estimate precisely.

⁹ The safeguarded route refers to land defined by the hybrid Bill, which is required for the project and is protected from other developments taking place.

The cost estimate at different phases of the programme

The estimate from 2009 up to deposit of the hybrid Bill in 2013

The initial estimate

2.8 In 2009, the High Speed 2 programme was at the early stages of initial preliminary design. HS2 Ltd supplied CBRE with information on the land and property it thought it would require, and approved the methodology and assumptions for use by CBRE in preparing the estimate. CBRE then estimated the value of this property through a desk-based exercise using publicly available data, such as land registry and online property searches. In 2012, HS2 Ltd used this estimate to create the figure reported in baseline 1 of £1,120 million (2011 prices).

2.9 HS2 Ltd instructed CBRE to base its 2009 estimate on the safeguarded uniform 120 metre-wide corridor of land (60 metres either side of the proposed route) between London and Birmingham. At that time, the government had not introduced discretionary compensation schemes. Residential properties were included, using the average value of that property type within each county through which the route passed. Agricultural land and woodland was the average value per hectare based on evidence on land transactions along the corridor in 2008-09. CBRE did some site-specific assessments of the potential cost of major sites, such as sites around Euston station. CBRE had not been instructed to conduct town planning appraisals at this stage and only included potential development values on a small number of sites. Development value refers to the potential value of a property in the event that it is substantially redeveloped. For example, a property with an industrial or commercial unit could be converted to a residential development for commercial gain.

2.10 HS2 Ltd told us that it did not consider it useful or value for money to create a detailed cost estimate prior to Royal Assent being granted because the Bill process would result in significant changes to the route, the scope of the project and the land and property. The Bill process did result in these changes. HS2 Ltd also told us that because it would not have powers of access to properties to carry out detailed valuations until after Royal Assent had been granted, it made little sense to invest significantly in the estimate until the hybrid Bill neared Royal Assent and the final route was confirmed.

The deposit of the hybrid Bill for Phase One

2.11 Parliament required the government to submit information about the land and property that it expected to acquire to build Phase One, in order that interested parties would have the information they needed to decide whether to petition Parliament. In November 2013 the government presented this in the form of a 'Book of Reference'; a list of all the properties that it expected to acquire. Interests and ownership of land changes over time. Therefore the Book of Reference is a 'live' document that HS2 Ltd updates to reflect these changing interests and the land required as it, and its contractors, develop the programme.

2.12 Parliament also required the government to submit an ‘Estimate of Expense’; a statement of what the government considered it would cost to construct the railway. The Estimate of Expense estimated the likely costs of acquiring land and property at £2,788 million (2011 prices). The government based the Estimate of Expense on the latest version of CBRE’s estimate of the cost to acquire land and property, created in 2013, which was £1,608 billion in 2011 prices (see Figure 5). In response to the specific requirements of Parliament, as set out in the Standing Orders for the Bill, HS2 Ltd included in the Estimate of Expense provisions for risks of £530 million and other provisions and changes since the 2013 estimate, totalling £650 million. Parliament did not require the Estimate of Expense to be based on the Book of Reference, and Parliament did not specify the level of maturity it required of the Estimate of Expense.

2.13 During the course of the passage of the hybrid Bill through Parliament, the government made five substantial changes to the proposed route and the design of the programme, known as ‘Additional Provisions’. HS2 Ltd provided an accompanying Estimate of Expense for each of the five Additional Provisions. Taken together these resulted in an increase in the estimated cost of land and property of around £175 million. Parliament did not require HS2 Ltd to provide a further consolidated update to the Estimate of Expense following its final decision on the route, discretionary schemes, and petitions from landowners and those affected by High Speed 2.

The 2014 estimate and the 2015 Spending Review

2.14 In 2014, HS2 Ltd commissioned CBRE to produce the first estimate based on the Book of Reference, rather than an estimate of the properties that might be required based on the safeguarded corridor. The estimate remained a desk-based exercise and used knowledge from previous iterations of the estimate where available. CBRE did not attribute a value to every potential interested party in the Book of Reference, which was, in practice, a list of all interests who could potentially receive notification of an acquisition, but who were not necessarily entitled to compensation. Examples of such interests included:

- mortgage lenders;
- government, where it owned the property listed;
- land owned by Network Rail, which was assumed to be subject to future land transfer agreements between Network Rail and HS2 Ltd;
- occupiers, who on account of the agreed methodology and assumptions would have created duplication;
- entries where the interest is stated as unknown; and
- entries relating to, for example, highways, access tracks, verges, canals and rivers which were assumed would be reinstated without a property cost.

For the 2017 version of the estimate, CBRE identified 18,601 potential property interests from the full Book of Reference of 80,655 that could be entitled to compensation after stripping out interests from the above categories.

2.15 The estimate increased from £1,608 million in 2013 to £2,263 million in 2014 (2011 prices) because:

- Basing the estimate on the Book of Reference rather than the uniform corridor resulted in an increase in the area of land to be acquired from around 25 square kilometres to around 70 square kilometres;
- it included more detailed estimates of individual properties based on improved knowledge about properties, rather than taking average values for classes of property in particular regions; and
- it included estimates of the cost of compensation through the discretionary schemes announced by the government between 2012 and 2014. Based on HS2 Ltd's latest estimates, this amounts to around £241 million after forecast land sales once Phase One is complete. HS2 Ltd currently estimates land sales to be around £692 million.

Because there were a range of items changing in the underlying assumptions, it has not been possible to reconcile the causes of each change to the estimate precisely.

2.16 The Department based the land and property element of its submission to HM Treasury for the 2015 Spending Review for funding for High Speed 2 on the 2014 estimate. It took the 2014 estimate and uplifted the price base to 2015, which contributed to an increase in the estimate to £3,295 million (2015 prices). In order to allow for risks to the acquisition programme, the Department bid for, and HM Treasury agreed, funding of £4,316 million (2015 prices) for Phase One land and property acquisition, including £878 million to cover the cost impact of assessed risks should they materialise.

The estimate between 2015 and Royal Assent for the hybrid Bill in 2017

2.17 In October 2014, HS2 Ltd developed an 'estimate improvement plan' to improve the accuracy and stability of the estimate and to record progress in refining the estimate. The plan acknowledged that the cost estimate had been based upon information known about each property and claimant, but that there was no comprehensive knowledge about every site and each claimant's interest, and – until Royal Assent for the hybrid Bill was granted – HS2 Ltd would have no right of access to a potential claimant's land or property to carry out valuations. HS2 Ltd could therefore not be certain that it had captured and correctly estimated all uses and affected parties who could be entitled to compensation. The plan aimed to improve the processes and information around the land and property cost estimate.

2.18 In January 2015, HS2 Ltd commissioned PwC to conduct a review of the methodology, suitability of processes and governance arrangements surrounding the estimate. The report found that HS2 Ltd's estimate improvement plan was a sensible way to proceed with development of the estimate, but made the following points:

- the estimate had been through a number of iterations as plans for the railway evolved. The evolution of such plans made it impossible for HS2 Ltd to produce a fully reliable and robust estimate at an early stage of the scheme. This also meant it was difficult to draw direct comparisons between estimates;
- there was no clear framework for how HS2 Ltd expected to develop the estimate over time, nor did it have a plan to determine when it would be beneficial to invest more resources into the estimate to improve its accuracy; and
- the methodology to estimate high value properties was inconsistent, and required further refinement, which led to increases in expected costs for some properties.

2.19 In 2016, HS2 Ltd commissioned six property consultancies to update the estimate using the latest Book of Reference, which included all the route changes made as the Bill passed through Parliament, to coincide with Royal Assent. CBRE coordinated the work and completed its report in February 2017. The estimated cost to acquire land and property included in this report, was £3,477 million (2015 prices), which HS2 Ltd adjusted to £3,295 million in its latest iteration of its baseline cost and delivery plan. The adjustment removed the provision for VAT from the estimate. HS2 Ltd, as instructed by the Department, currently excludes VAT from its cost estimates because VAT returns to HMRC, and does not represent a net cost to government. In its statutory accounts, the Department does include irrecoverable VAT as it incurs expenditure.

2.20 The estimate increased to reflect changes to the programme caused by the hybrid Bill, including route changes, petitions and discretionary schemes and because HS2 Ltd instructed the property consultants to use a more detailed methodology. The property consultants based their work on a more detailed design of the overall Phase One programme and more information on the property required. The estimate remained a largely desk-based exercise. However, it also assessed individual rights and claims to the land, such as contracts in place for commercial properties, which may affect the level of compensation available to individual claimants. As with previous iterations, and in line with HS2 Ltd's instructions, the estimate included potential development value based on existing planning applications, not an assessment of the possible development value.

2.21 HS2 Ltd is currently updating its cost estimates ready for submitting a full business case to the Department in mid-2019. HS2 Ltd plans to take account of the latest information from its main civil engineering contractors on the land required to build and operate the railway.

2.22 HS2 Ltd has allocated its land and property function a budget for its acquisition of land and property for Phase One of the programme. The land and property budget includes a provision for the level of compensation that it expects to pay to claimants under the statutory and discretionary property compensation schemes, and an allocation of contingency, based on a quantification of risks to those estimates.

2.23 As at July 2018, HS2 Ltd was forecasting that the cost to acquire land and property would be £3,356 million. This was £308 million less than its budget of £3,664 million, which includes £369 million of contingency to manage risks. The Department for Transport holds additional contingency funding covering the full Phase One programme, up to the amounts agreed at the time of the 2015 Spending Review. The forecast is based on a combination of HS2 Ltd's 2017 estimate of the cost to acquire property, and around 90 specific properties for which HS2 Ltd has received claims, and for which it has carried out detailed valuations. These valuations are carried out to a greater level of detail than the figures in the estimates because they need to be reliable enough to negotiate compensation at an individual property interest level, rather than to support a portfolio-level estimate.¹⁰

2.24 The early stage of the programme means that there remains significant uncertainty and it is therefore too early to say what the final cost will be. For example:

- There is potential for further changes to the scope of the programme, and therefore the amount of land required.
- Compensation under the discretionary schemes is demand-led so it is unclear how many and which property owners will apply for compensation under these schemes.
- More property owners than HS2 Ltd anticipates could submit claims which include potential development value.
- The final settlement value of almost all properties to be acquired under compulsory purchase powers, including some high-value properties like the site at Euston Station, is not yet finalised.

¹⁰ For the detailed valuations completed to date the NAO has, in support of its financial audit of the Department for Transport, and with the support of an external expert, reviewed a sample. The NAO has been content that these valuations constitute a reasonable estimate of the compensation on the cases selected, and has noted in support of the valuation of the population that adjusting for inflation, the detailed valuations broadly support the valuation for compulsory purchases to date.

Part Three

Performance of HS2 Ltd's land and property function

HS2 Ltd's land and property function

3.1 HS2 Ltd's land and property team is responsible for acquiring land and property in time for works to begin, including sending out notices, processing claims, and managing any claims that are disputed, whether through Alternative Dispute Resolution or ultimately via the Lands Tribunal where necessary.¹¹ It is also responsible for managing land and property acquired and for selling, on behalf of the Secretary of State, any land no longer required for operating the railway in future. It is also responsible for reporting progress and managing HS2 Ltd's land and property budget.

3.2 In the planning and development phase of the High Speed 2 programme, the land and property team was part of HS2 Ltd's broader commercial function. The commercial function was responsible for developing HS2 Ltd's commercial approach to procuring contractors for the main enabling work contracts and civil engineering contracts for Phase One of the programme. Between 2013 and 2016, HS2 Ltd had five directors of the land and property function.

3.3 In the early stages of the programme, HS2 Ltd did not have a clear plan for how it would develop the capacity and capability required, including people, systems and processes. Nor did it have a clear set of performance metrics against which to monitor progress. HS2 Ltd produced its first clear statement of its strategy and approach to acquiring land and property in 2015, in preparation for a review of the company's overall readiness to deliver Phase One.

The development of the land and property function

3.4 In September 2015, HS2 Ltd commissioned Deloitte to review its land and property acquisition function. In December 2015, Deloitte reported that the land and property team had made some progress in developing its land and property function, including drafting of processes and procedures based on other programmes such as Crossrail. The team had also made progress with analysing options for the IT systems required to deliver the land acquisition.

¹¹ Details about HS2 Ltd's Alternative Dispute Resolution process can be found at: www.hs2.org.uk/documents/alternative-dispute-resolution-for-compulsory-purchase-claims/

3.5 However, Deloitte found that while there was awareness of the huge volume of work required, there was little evidence of how HS2 Ltd was building capacity to meet this volume. It said that there was a large amount of work to do to build the necessary capabilities to deliver the land and property acquisition programme. It considered that HS2 Ltd's immediate priorities should be to properly resource the land and property team to meet the future work demands, and to review the IT systems needed to deliver the land and property acquisition effectively.

3.6 The Deloitte report recommended HS2 Ltd establish a transformation programme to build capacity and capability within the land and property team. In January 2016 HS2 Ltd began a transformation programme to ensure that the people, processes and systems were in place ahead of the granting of Royal Assent for the hybrid Bill. In June 2016, HS2 Ltd commissioned Ernst & Young to help implement aspects of the transformation programme. The overall transformation programme consisted of three tranches of work;

- **Tranche 1 – People Capability** – aimed to set out a template for how the land and property function's people, processes, systems and structures come together to realise its purpose.
- **Tranche 2 – Process Capability** – to design the details of how land and property will be assembled and acquired.
- **Tranche 3 – System Capability** – to develop the technology and data solutions needed to support land and property acquisition, including three new IT systems.

3.7 In March 2017, HS2 Ltd ended the transformation programme. HS2 Ltd considered that tranches 1 and 2 on people and processes were complete and could be managed as business as usual. However, at that point none of the IT systems required to manage the programme of property acquisition had reached the required level of capability ahead of Royal Assent. One of the IT systems was an acquisition data management system to enable HS2 Ltd to manage compensation claims, advance payments, and final settlements for land and properties acquired, temporarily possessed or accessed under compulsory purchase powers. Without it, the land and property team had to use other available systems. HS2 Ltd has now rolled out this new system and is making further enhancements.

Current capacity and capability of the land and property function

3.8 In response to the transformation programme, staff numbers within the land and property team increased from 27 in April 2015 to 103 in August 2018, excluding 13 temporary staff and secondees. HS2 Ltd currently have 17 posts vacant against its current requirement of 133 total staff. In addition, nine private sector firms provide HS2 Ltd's in-house land and property team with specialist services such as property valuation services.

3.9 The Government Internal Audit Agency (GIAA) has carried out two examinations of the land and property function since Royal Assent. The latest report from March 2018 noted that the land and property team's processes had matured since its previous report in March 2017. It agreed that the team's resourcing plans were appropriate and that it had sufficient capacity to deliver the land and property acquisition programme, based on current construction requirements. The report also highlighted delays in payments made to claimants which exceeded the three-month statutory period.

3.10 HS2 Ltd has strengthened the governance, assurance and project management capability in its land and property team. For example:

- In 2016, HS2 Ltd established a Land and Property Board, which monitors progress and risks, and which approves acquisitions between £5 million and £20 million. HS2 Ltd's finance director chairs the Board which includes membership from across the company.
- In 2016 the land and property team established a programme management office to coordinate aspects of project management and reporting. The office produces detailed reports on progress with land and property acquisition, forecast expenditure against budget and progress with meeting objectives on, for example, payment of compensation. The office reports to the HS2 Land and Property Delivery Board, the HS2 Programme Board and the Department's Client Board on request.
- In 2017, HS2 Ltd established the Land and Property Delivery Board. It considers the programme management office's progress reports.
- The monthly programme review, chaired by HS2 Ltd's Chief Executive, and the Department's client board also monitor progress of the land and property function.

Progress with acquiring land and property

3.11 A key indicator of the success of the land and property acquisition programme is whether it gains access or possession of land in line with the requirements of the construction schedule. HS2 Ltd monitors progress using this measure and also monitors risks to timely acquisition of land and property. As of the end of July 2018, HS2 Ltd has spent £1,710 million on land and property for Phase One including:

- 492 properties acquired via schemes such as statutory blight, discretionary schemes and private agreements, at a cost of around £881 million; and
- 165 properties via compulsory purchase, covering 739 property interests at a cost of around £829 million.¹²

A high proportion of the properties acquired under compulsory purchase powers to date are higher value commercial properties in London.

3.12 To date, HS2 Ltd is broadly on track to gain access to the required land and property in time to meet the construction schedule, although construction activity is planned to increase sharply during 2018 and 2019, so the volume of land to be processed will also increase. HS2 Ltd reports that it could fail to gain timely access to carry out a survey on only one site out of around 600 currently planned, and that it considers this to have a low impact on the schedule. Out of 112 sites for which HS2 Ltd needs to take possession in the near future to carry out construction work, HS2 Ltd considers six are not on track, and only one of these is considered to have high impact on the construction schedule.

3.13 There are significant risks to the success of the acquisition programme, which HS2 Ltd has identified and is taking steps to manage. For example, there is a risk that the amount of required land could change substantially as a result of changes to the scope of the programme or the construction methods of the main contractors, which could impact the overall construction schedule.

3.14 One of HS2 Ltd's requirements under the compensation code is to compensate claimants under a compulsory purchase order with 90% of HS2 Ltd's valuation of the property within three months of the claim being issued.¹³ In order to make such a valuation, the code requires claimants to provide such information as HS2 Ltd may reasonably require to enable it to estimate the amount. Where such information is not provided or is delayed, the timing of the payment could be impacted.

3.15 Between March 2017 and August 2018 payments have been later than the three months, or are forecast to be later, in 52 out of 108 cases (48%). HS2 Ltd has carried out its own analysis of the reasons for not meeting its requirements for advance payments (**Figure 6**). It found that of the 52 outstanding cases, 17 were, at least in part, because of delays caused by HS2 Ltd.

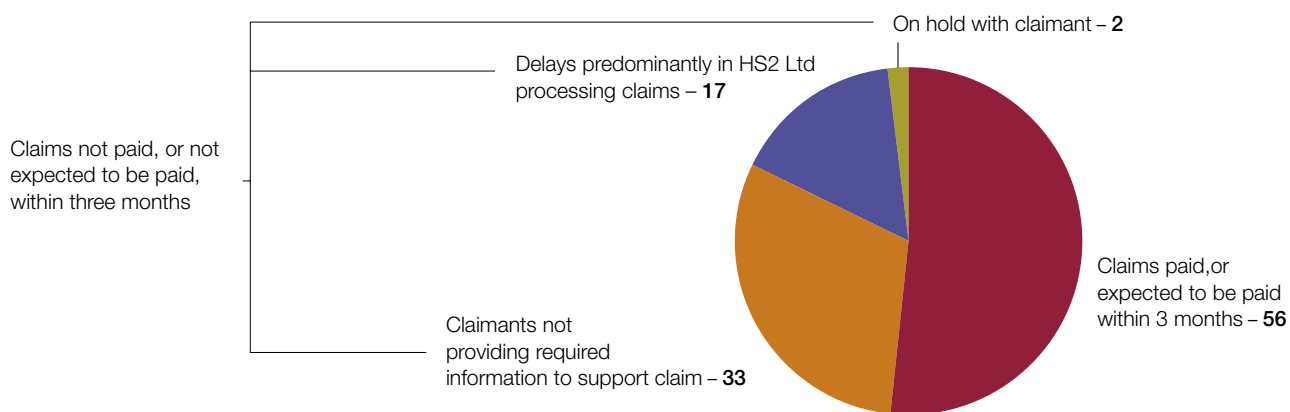
¹² HS2 Ltd has also acquired five properties through private agreement.

¹³ See paragraph 1.7.

Figure 6

Number of claims received by HS2 Ltd for compensation

52 (48%) of 108 claims have not been paid within three months



Notes

- 1 Guidance about how to claim compensation can be found at: www.gov.uk/claim-compensation-if-affected-by-hs2
- 2 Under the compensation code, a claimant has to make a request in writing to HS2 Ltd, giving details of their interest in the land. Where details are not provided in a timely manner this will impact on when a payment can be made.

Source: High Speed 2 Ltd

Appendix One

Our investigative approach

Scope

1 We conducted an investigation into concerns that have been raised to us and in the press relating to HS2 Ltd's acquisition of the land and property required to build Phase One of High Speed 2.

Methods

- 2 In examining these issues, we drew on a variety of evidence sources.
- We interviewed key individuals from HS2 Ltd and some of the main consultants and suppliers to HS2 Ltd in regard to the land and property programme.
 - We reviewed a range of documentation from HS2 Ltd, including:
 - consultants' reports setting out the estimate of the cost to acquire land and property;
 - minutes and papers from meetings of governance bodies in HS2 Ltd;
 - presentations and documentation setting out the objectives, purpose and development of the land and property function in HS2 Ltd;
 - financial information from HS2 Ltd setting out the nature of the cost estimates;
 - plans setting out how HS2 Ltd was developing its capability and capacity; and
 - reports on progress with gaining access to and possession of the land required to construct the railway.
 - We built on and took assurance from work carried out by the National Audit Office teams responsible for auditing the financial statements of HS2 Ltd and the Department for Transport.

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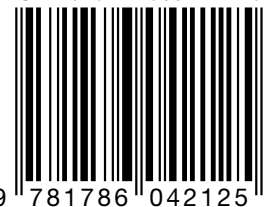


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