George Osborne is facing pressure to radically overhaul Britain's banks by introducing a new law to jail bankers for "reckless misconduct" and force bankers to wait up to 10 years to receive their bonuses.

The proposals, among the key measures recommended in a major report by the parliamentary commission on banking standards, also include a call on him to consider breaking up the Royal Bank of Scotland. They come ahead of the chancellor's crucial set-piece Mansion House speech to the City on Wednesday night.

The chancellor is urged to restore confidence in the financial system by making top bankers more accountable for their actions in the wake of the 2008 bank bailouts, the Libor rigging scandal, and the shoddy treatment of customers mis-sold payment protection insurance.

The senior Conservative MP Andrew Tyrie, who led the commission, said the 80 or so recommendations were intended to "change banking for good". They also include giving regulators new powers to halt bonus payouts and pensions for bosses of any banks that have to be bailed out by the taxpayer in the future.

"It is not just bankers that need to change. The actions of regulators and governments have contributed to the decline in standards," Tyrie added.

Set up in the wake of Barclays' £290m fine for rigging Libor a year ago and counting former chancellor Lord Lawson and the Archbishop of Canterbury Justin Welby among its members, the commission also uses its 550-page report to call for:

• A revamp of the way bankers are authorised to work in the City and to make top bankers more accountable after so few of them were sanctioned following the 2008 banking crisis.

• An audit of the number of women on trading floors, on the grounds that employing more female traders could reduce risk.

• New measures to foster high street competition, including an investigation into whether bank accounts numbers can be made portable in the same way as mobile phone numbers.

• Giving everyone a right to a simple bank account.

• And an overhaul of the "court" of the Bank of England, giving it a new board of directors.

The Treasury is ready to make amendments to the finance bill to adopt the recommendations. It consulted last year on the possibility of criminal sanctions for directors of failed banks but has yet to publish its conclusions.

In the past, the commission's report said, top bankers had "donned blindfolds" as they knew they could not be punished for wrongdoings they could not see. When they could "not claim ignorance, they fell back on the claim that everyone was party to a decision ... the Orient Express defence".

The report, which will be supplemented today by seven more hefty volumes, reopens the debate about the future of 81% taxpayer-owned RBS by calling on Osborne to review, by September, whether it should be broken up into a good and bad bank. Tyrie warned the government it may need to be "bold" on the future of RBS and consider the merits of all options to break it up and sell it off, including splitting it into a number of smaller banks in order to boost competition on the high street.

"The current state of RBS creates problems for banking competition and for the British economy. Further restructuring may well be needed. The government may need to be bold," Tyrie said.

"Political considerations must be put to one side," and parliament needed to be told of any "insuperable" obstacles to a break up.

Osborne is expected to use his Mansion House speech today to signal a sell off the government's 39% stake in Lloyds Banking Group but he is not thought likely to endorse the idea by the cross-party commission to shut down UK Financial Investments, the body set up to look up after the taxpayers' stakes in the bailed-out banks.

The commission described UKFI as a "fig leaf" to hide political interference by the chancellor, who yesterday insisted he had not personally forced Stephen Hester to resign as boss of RBS last week to clear the way for the bank's privatisation.

The commission, though, said the government had interfered in the running of both bailed-out banks. "On occasions it has done so directly, on others it appears to have acted indirectly, using UKFI as its proxy," the report said.

Osborne is also facing pressure from business secretary Vince Cable to back away from any quick sale of RBS while Ed Balls, the shadow chancellor, is telling him to "resist the temptation for a loss-making fire sale". Balls said: "The government must look at the whole range of options for the future of RBS to ensure the taxpayer gets its money back and there is no return to business as usual."

The report does not recommend a full-blown competition investigation into the banking industry, which is dominated by the big four of RBS, Lloyds, Barclays and HSBC – an option that Cable is thought to regard as important.

Pat McFadden, a Labour MP who sat on the commission, said: "Our report is about tackling the cultural and standards failings in banks. From running unacceptable risks with other people's money to PPI mis-selling, money laundering and Libor interest rate rigging, these failings have been a betrayal of the taxpayers who bailed out the banks and the majority of good honest people who work in the industry."

A Treasury spokesman described the report as "very impressive", saying: "The government publicly welcomes the commission's recommendations on increased personal responsibility especially at a senior level, increased professional judgment by regulators and better functioning markets. We will report before the summer recess."